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By Federal Express

May 3, 2007

Joseph LeMay, P.E.  
Remedial Project Manager  
US EPA – Region I  
1 Congress Street, Suite 1100 (HBO)  
Boston, MA 02114-2023

Re: UniFirst, Wells G&H Site

Dear Joe,

I have enclosed one hard copy and one CD of the report titled *Monitoring Well Installations and Sampling of Ground Water and Unconsolidated Deposits, July 1993 – February 1994, UniFirst Property, Woburn, Massachusetts*. UniFirst submitted this report to the EPA on March 11, 1994. This report contains the data sheets for the ground-water samples from wells UC25 to UC36 that you requested. Specifically note that samples of ground water were analyzed for VOC, Chloride and Nitrate from the following wells only: UC25, UC26S, UC26D, UC29S, UC29D, UC30, UC31S, UC31M, and UC31D. Locations UC27 and UC28 were soil borings; no wells were installed at these locations. Wells UC32 to UC36 were drilled primarily as soil borings inside the building. We installed narrow diameter wells in these borings; however, we did not analyze ground-water samples from UC32 to UC36.

I have forwarded a copy to Jay Bridge so that GeoTrans can add these data to its database. Please contact me if you have questions.

Sincerely,

Jeffrey T. Lawson  
Senior Principal

Cc: Brian Keegan (UniFirst)  
Jay Bridge (GeoTrans)

Enclosures

**INTERIM DATA REPORT**

**Monitoring –Well Installations  
and Sampling of  
Groundwater and Unconsolidated Deposits  
July 1993 – February 1994**

**Unifirst Property  
Woburn, Massachusetts**

**March 11, 1994**

**Prepared For:  
UniFirst Corporation**

**Submitted To:  
U.S. Environmental Protection Agency  
Region I**

**Prepared By:  
Stan Feenstra  
Applied Groundwater Research Ltd.**

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## **Table of Contents**

	<b>Page</b>
	iii
<b>List of Tables</b>	iii
<b>List of Figures</b>	iii
<b>Introduction</b>	1
<b>Investigation Activities</b>	3
Test-Pit H and Surface Sample TPI – July, 1993	3
Test Pits and Soil Borings on East End of the Property– December, 1993	4
Installation of Groundwater Monitoring Wells	8
Groundwater Sampling	9
<b>Conclusions and Recommendations</b>	11
<b>References</b>	12
<b>Appendix A</b> Field Logs	
A-1    Test-Pit Logs	
A-2    Boring Logs	
A-3    Well-Construction Logs	
<b>Appendix B</b> Analytical Results For Test Pits and Borings	
B-1    Volatile Organic Compounds	
B-2    Semi-volatile Organic Compounds	
B-3    Pesticides/PCB	
B-4    Physical Properties	
<b>Appendix C</b> Analytical Results for Groundwater Samples	
C-1    Volatile-Organic Compounds	
C-2    Chloride and Nitrate	

## **List of Tables**

- |         |   |
|---------|---|
| Table 1 | UniFirst Property, Unconsolidated-Deposits Sampling Inventory |
| Table 2 | Well Construction Summary                                     |
| Table 3 | Summary of Physical Properties Results (GEI Consultants)      |
| Table 4 | Summary of Falling-Head Permeameter Results                   |

## **List of Figures**

- |          |   |
|----------|---|
| Figure 1 | UniFirst Property Boring, Monitoring Well and Test Pit Locations. |
| Figure 2 | Sampling and Monitoring Locations, East End of UniFirst Property  |
| Figure 3 | Schematic of Sample Locations, Test Pit H, UniFirst Property      |
| Figure 4 | Schematic of Sample Locations, Test Pit J, UniFirst Property      |
| Figure 5 | Schematic of Sample Locations, Test Pit K, UniFirst Property      |
| Figure 6 | Schematic of Sample Locations, Test Pit L, UniFirst Property      |

## **Introduction**

This report comprises an interim submittal, to the U.S. Environmental Protection Agency—Region I (EPA), of analytical data generated at the UniFirst property (Property), Wells G&H Site, Woburn, Massachusetts, between July 1993 and February 1994, during activities related to the Remedial Design and Remedial Action (RD/RA) for the unconsolidated deposits beneath the Property. This deliverable constitutes the second interim report referenced in the October 28, 1993 letter from Mr. Jeffrey Lawson of Environmental Project Control, Inc., (EPC) to Ms. Mary Garren of the EPA. The purpose of this report is to provide the EPA, in a timely manner, with copies of the data generated during recent on-Property investigations. The results of these analyses will be considered and interpreted in conjunction with all the other data generated for the Property, and the resulting conclusions regarding the conceptual model for contamination beneath the Property and proposed remedial approaches will be presented in a later report. This report provides a discussion of the data only in so far as it affects decisions about the next phases of field work at the Property.

A variety of investigations have been conducted at the Property in an effort to develop and evaluate a conceptual model for contamination of the unconsolidated deposits, as described in the November 13, 1992, draft *Pre-Design Work Plan, Remedial Design and Remedial Action for the Unconsolidated Deposits beneath the UniFirst Property* (Work Plan). Following submission of the Work Plan to the EPA, additional studies were undertaken both to generate additional site-characterization data following discovery of a previously undetected zone of contamination in the northeast corner of the Property, and to address several concerns raised by the EPA, which were expressed in the July 12, 1993 letter from Paula Fitzsimmons of the EPA to Jeffrey Lawson.

The first phase of these additional investigations involved the characterization of petroleum-related hydrocarbon compounds detected in the contamination in the northeast corner of the Property, referred to as the “waste-oil contamination” in the Work Plan. The July 1993 field investigation, which was conducted in support of this characterization effort, and the results of the petroleum-hydrocarbon analyses were reported to the EPA in the January 28, 1994 interim data report, *Analyses for*

*Petroleum-Hydrocarbon Characterization of Unconsolidated Deposits, DNAPL and Bituminous Concrete from the UniFirst Property (January 1994 Report).*

The second phase of field investigations, conducted during the period December 1993 to February 1994, included additional source-area characterization to define further the nature and extent of contamination within the unconsolidated deposits. The data generated during this second phase of field investigation are reported herein. For ease of comparison of analytical results, the volatile-organics analyses of unconsolidated-deposits samples collected during the first phase of field investigations are also reported herein, rather than in the January 1994 Report since that report focused more specifically on petroleum-hydrocarbon characterization analyses.

## **Investigation Activities**

This section recapitulates the investigations undertaken on the Property since July 1993, including those investigations described in the January 1994 Report. The field investigation conducted during the period of July 1993 to February 1994 included: excavation and sampling of 4 (four) test pits; sampling of bituminous-concrete pavement and unconsolidated deposits; geologic logging and sampling of soil borings, and; installation and sampling of groundwater monitoring wells. The locations of all test pits, borings, and monitoring wells are presented on a base map for the Property in Figure 1. Monitoring and instrumentation locations on the east end of the Property are highlighted in Figure 2. All sampling and analyses were performed in accordance with the Quality Assurance Project Plan (QAPP) provided with the Work Plan. Methodologies for any procedures not covered in the QAPP are as noted. Field logs for all test pits and borings completed during this phase of the investigation, and well-construction logs for newly-installed monitoring wells are provided in Appendix A. Results from the analysis of unconsolidated-deposits samples are provided in Appendix B. Appendix C includes analytical results for chemical analysis of the groundwater samples collected.

### **Test Pit H and Surface Sample TPI – July, 1993**

In July 1993 a test pit (TPH) was excavated inside the present building, in the area adjacent to monitoring well UC8 (Figure 2), to collect bituminous-concrete-pavement samples from a buried, in-place pavement layer that was part of an earlier configuration of the loading dock. South of the current loading dock, a second bituminous-concrete sample from the current surface pavement outside the building was collected at location TPI (Figure 2). These samples were collected and analyzed as part of the petroleum-hydrocarbon characterization study. The sample-collection procedures, as well as the results of the petroleum-hydrocarbon characterization analyses are included in the January 1994 Report.

In addition to collecting a bituminous-concrete sample, excavation of Test Pit H afforded an opportunity to collect unconsolidated-deposits samples for analysis for

volatile-organic compounds. Samples (approximately 200 grams of unconsolidated deposits per sample) were collected from the walls and bottom of the test pit with a clean stainless-steel spoon and were immediately transferred to a pre-weighed, glass, sample jar containing methanol. Figure 3 is a schematic of Test Pit H showing the location of the buried pavement layer and the relative locations of unconsolidated-deposits samples collected. A copy of the field log for Test Pit H is included in Appendix A-1. A total of four samples (TPH-1A, TPH-2A, TPH-9A, and TPH-11A) were submitted to the laboratory for volatile-organics analysis. The results of these analyses are included in Appendix B-1. Tetrachloroethene (PCE) was detected in these samples at concentrations up to 3400 µg/kg. Trichloroethene (TCE) and 1,2-dichloroethene (1,2-DCE) were reported at below the method detection limit in one, and in two samples, respectively.

At location TPI a bituminous-concrete sample for petroleum-hydrocarbon-characterization analyses was collected by cutting-out a 1-foot square piece of surface pavement. Immediately following removal of this surface-pavement sample, a sample of the unconsolidated deposits (sample TPI-1A) was collected within 3- to 6-inches beneath the pavement layer using a clean stainless-steel spoon. The sample was transferred immediately into a pre-weighed, glass sample jar containing methanol and submitted for volatile-organics analysis. A field log was not prepared for this sampling location since it consists of a surface location only with no appreciable depth or lateral extent. Results of the analysis of the unconsolidated-deposits sample are included in Appendix B-1. PCE was detected in this sample at 120,000 µg/kg along with 1,1,1-trichloroethane (1,1,1-TCA) at 8,500 µg/kg and 1,1-DCE at 820 µg/kg. TCE was reported at below the method detection limit.

#### Test Pits and Soil Borings on East End of Property—December 1993

As described in the Work Plan, an area of debris and contaminated soil was discovered in the northeast corner of the Property in August 1992. This “waste-oil contamination” was sampled at the time of its discovery and its extent and relationship to previously-detected, on-Property contamination were subsequently investigated further through excavation and sampling of Test Pits F and G (Work Plan) and the petroleum-

hydrocarbon-characterization study (January 1994 Report). A review of historical aerial photographs produced a 1964 photograph that revealed an area of surface staining of the soil in the vicinity of the waste-oil contamination (Work Plan). The approximate extent of the soil staining observed on the aerial photograph is shown in Figure 2.

To investigate further the extent and nature of contamination in the northeast corner of the Property, and its relationship to the extent of the zone of soil staining observed in the 1964 air photo, three additional test pits were excavated and two borings were completed and sampled in December 1993. Two test pits (TPJ and TPK) were excavated outside of the building and one test pit (TPL) was excavated beneath the building, within the northern end of the loading dock. All three test pits are within the area of apparent soil staining as interpreted from the aerial photograph (Figure 2). In addition, two soil borings (UC27 and UC28) were completed to the east of Test Pit F (Figure 2).

All three test pits were excavated by backhoe to the top of bedrock to allow inspection of the entire thickness of unconsolidated deposits in these locations. Conditions in the test pits were described on geologic logs and samples were collected from the side walls of the test pits after first excavating a clean face. Borings were advanced using 4 1/4-inch inside diameter hollow-stem augers and were sampled continuously using a standard 1<sup>3</sup>/8-inch inside diameter split-spoon from ground surface to refusal. The field logs for the test pits are provided in Appendix A-1, and the boring logs for UC27 and UC28 are included in Appendix B-1.

Samples were collected from the test pits and borings to characterize both the physical and chemical variability in the unconsolidated deposits. Table 1 is a sampling inventory for the unconsolidated-deposits samples described herein, and summarizes which chemical and physical analyses were performed for each sample collected. All test-pit and boring samples submitted for volatile-organics analysis were field-preserved in methanol. Analytical results for the chemical analyses are provided in Appendices B-1 through B-3. Results of the physical analyses are provided in Appendix B-4.

Schematics illustrating the relative locations of samples collected from Test Pits J, K and L are shown in Figure 4, Figure 5, and Figure 6, respectively. In these

schematics, the divisions between lithologic descriptions provided in the log are shown as wavy lines to represent the variability of deposits across the test pits. Lateral variation in grain-size distribution and texture of the unconsolidated deposits was considerable across the test pits. Accumulations of deposits characterized by consistent grain-size distribution occurred more typically in discontinuous and unclearly bounded lenses than continuous stratigraphic layers with distinct contacts. The descriptions provided in the field logs, and included on the schematics, are the results of mapping typical changes along one representative portion of the pit face for each test pit.

During excavation of the test pits and advancement of the soil borings, all samples, test-pit exposures, and cuttings were observed closely for visual signs of contamination and were screened with a field instrument containing a photoionization detector (HNu or OVM) for evidence of volatile-organic-compound contamination. No obvious signs of contamination such as odorous or discolored deposits were noted in any of the test pits or borings. Slightly elevated readings on the field-screening instrument (HNu) were obtained during excavation of test pit K, as discussed below, and headspace readings of up to a reading of 96 (OVM) were reported for samples from UC27. No other elevated readings were encountered during the investigations.

In Test Pit K, slightly elevated readings were encountered (up to 79 on the HNu). All materials with an HNu reading of greater than 10 were excavated and segregated by temporarily storing on, and covering with, plastic sheeting. Approximately 5 to 10 cubic yards were excavated and segregated in this way. These segregated deposits were subsequently transferred to a lined roll-off on the Property. They are stored there, along with cuttings from the soil borings, until appropriate disposal arrangements can be made. Analyses of the soil in the roll-off is being scheduled, and disposal options will be determined when results are obtained. EPA will be updated on disposal arrangements as they are made.

Analysis of unconsolidated-deposits samples from the three test-pits for volatile organic compounds indicated only modest levels of contamination; PCE concentrations ranged from non-detect to 170 µg/kg. PCE was reported at below the method detection limit in analytical results for samples from boring UC28. Boring UC27 exhibited the only elevated concentration for PCE in soil; a PCE concentration of 20,000 µg/kg

accompanied by low levels of toluene and xylene below the method detection limit were reported for analysis of an unconsolidated-deposit sample from 4- to 6-feet depth . No other chlorinated-solvent compounds were detected in these samples.

Although no areas of soil staining were seen during these investigations, a sample from each of borings UC27 and UC28, and Test Pits K and L were collected and submitted for analyses for both semi-volatile organics and pesticide/PCB by CLP methods. Results of these analyses indicated that samples were all below the detection limits for the methods' target compounds.

Samples for physical analysis were collected to provide additional Property-specific characterization data, to elucidate further the degree of the vertical and lateral variability of these physical properties, and to assist in design of, and prognosis for, soil-vapor extraction beneath the Property. The physical-properties analyses conducted during this investigation included measurements of: grain-size distribution, bulk-density, moisture content, specific gravity of sample solids, and permeability by falling-head permeameter. Table 1 provides a cross-reference to show which of these analyses were performed for each sample. Results of these analyses are provided in Appendix B-4.

In test pit K, five samples from a vertical sequence and five samples from a horizontal sequence (Figure 5) were collected in an attempt to characterize typical variations in physical properties over relatively small distances. For bulk-density analyses, samples were collected by driving a lined coring device into the sidewall of the test pit to obtain an "undisturbed" sample of known volume. The brass liners containing the soil samples were extracted from the sampling device, sealed and shipped to the lab for analysis. Additional samples were collected directly into wide-mouth glass jars with tight-fitting screw caps for use in permeameter analyses and measurements of soil moisture, grain-size distribution and specific gravity.

Analyses for grain-size distribution, moisture content, specific gravity, and bulk density were performed according to the methods described in the GEI report in Appendix B-4. Falling-head permeameter measurements were performed according to the method described in the report by Colorado State University, also contained in

Appendix B-4. A summary of the results of the physical-properties measurements, as provided in these reports, are given in Tables 3 and Table 4.

#### Installation of Groundwater Monitoring Wells

During the December 1993 field investigation, an additional eight groundwater-monitoring wells were installed within the unconsolidated deposits at four locations (UC26, UC29, UC30 and UC31) on the Property (Figure 1). One purpose for installation of these wells was to augment the existing monitoring network in an effort to delineate areas of shallow groundwater contamination that may result from conditions in the unconsolidated-deposits. At each of the four locations, a "shallow" water-table monitoring well was installed, which was screened across the approximate seasonal depth range of the water table for that location (UC26S, UC29S, UC30 and UC31S). At three of the four locations, where thickness of the unconsolidated deposits permitted, nested wells at increasing depths were installed. The depths and elevations of the screen intervals for the newly-installed wells are provided in Table 2.

Borings were advanced to the desired depth using 4 1/4-inch inside diameter hollow-stem augers. At each location, the deepest borings were logged and samples were collected using a standard 1 3/8-inch inside diameter split spoon at a minimum of one split-spoon for every 5 feet of depth. At location UC29 the first boring was sampled continuously from surface to the water table using a standard split spoon. At location UC30, the initial boring was sampled continuously from surface to refusal by standard split spoon, and bedrock was confirmed by coring five feet into the top of bedrock. This initial boring was then grouted to the surface and a second boring was advanced, without sampling, 3 feet to the west for the purpose of placing the well screen above the bedrock surface. Boring logs for each location are included in Appendix A-2.

All split-spoon samples were field screened for the presence of volatile organic compounds by headspace analysis with a field-screening instrument (OVM). All headspace readings were less than 10, suggesting the absence of significant concentrations of volatile organic compounds. No visual or olfactory indications of contamination were encountered. As a more sensitive measurement of chemical contamination, unconsolidated-deposits samples were collected for laboratory VOC

analysis for the two easternmost locations, UC29 and UC30. Samples were collected at 4-feet depth intervals from surface to the water table from the split-spoon samples, and were field-preserved in methanol. Samples from the UC30 boring did not exhibit chlorinated-solvent concentrations above the method detection limit. For boring UC29, PCE concentrations were reported at below the method detection limit for two samples collected right at the water table, and chloroform was also reported below the method detection limit for one of those samples (sample 29D5B).

Monitoring wells were constructed at each location with 2-inch PVC, 10-slot screens connected to 2-inch PVC riser pipe. A sand pack was placed around the screen up to approximately 1 foot above the top of the screen and an additional 1-foot of very fine sand was placed over the sand pack. A 2-feet thick bentonite seal was placed over the sand packing. The remainder of the annular space between the riser pipe and the borehole was tremie-grouted to the surface using a 9:1 neat cement-bentonite mixture. The installations were finished at ground surface with a road box installed in a concrete collar. Details regarding well construction are provided in the construction logs in Appendix A-3.

Wells were developed approximately one week following installation by use of a surge block and submersible pump. Each well was purged until the purge water was clean or 10 standing volumes had been removed. All purge water was drummed and treated on-Property by injecting the well-purge water into the groundwater treatment system.

#### Groundwater Sampling

In January 1994 groundwater samples were collected from the newly-installed monitoring wells, with the exception of UC30, which was dry at the time of sampling. Samples were collected for analysis for volatile-organic compounds, chloride and nitrate.

A rise in the water table following a partial snowmelt and precipitation in late January caused well UC30 to "wet up." On February 7, 1994, groundwater samples were collected from UC30 as well as UC25. Monitoring well UC25, a shallow,

unconsolidated-deposits well installed in September 1992, was sampled at this time because it had been dry during previous sampling efforts. The UC30 and UC25 samples were analyzed for volatile-organic compounds, chloride and nitrate. Results of the chemical analyses of the groundwater samples are included in Appendix C.

PCE concentrations detected in the groundwater samples ranged from 2 µg/L and 9 µg/L in monitoring wells UC31S and UC31M, to a high of 1000 µg/L in well UC25. Other chlorinated-solvent compounds were detected in samples from some wells, but at much lower concentrations. Analytical results for these analyses are provided in Appendix C. Results from the shallow wells indicated that the highest dissolved PCE concentrations occurred, in decreasing order of magnitude, in wells UC25, UC29 and UC26.

## **Conclusions and Recommendations**

Excavation of test-pits and advancement of borings performed during this latest phase of investigations at the UniFirst Property failed to detect any areas of “grossly” contaminated soils that would serve as an obvious source of contamination to underlying groundwater. No zones of non-aqueous phase liquid (NAPL) accumulation were detected. The contamination detected was principally PCE, and the only elevated concentrations detected in the unconsolidated deposits were limited to the immediate areas of previous detection of contamination on the Property.

Most of the area of unconsolidated deposits delimited by the stained-soil zone observed on the 1964 aerial photograph have been directly investigated by excavations or borings. Results of the recent investigations, including the absence of significant contamination in Test Pit L, suggests that it is unlikely the waste-oil contamination would extend, within the unconsolidated deposits, beneath the building to the west.

The lack of identification of any continuous zones of significant contamination have made it difficult to identify an area most suitable for a pilot vapor-extraction test. Therefore, prior to conducting any pneumatic tests, the following further work is recommended:

- Detection of a relatively high concentration of PCE (120,000 µg/kg) at location TPI warrants further investigation to determine if concentrations persist with depth. Previous investigations in this area of the Property suggest that unconsolidated-deposits contamination is very “spotty” laterally. More thoroughly-developed test-pit sampling in this area would help investigate this further.
- Concentrations of PCE detected in shallow wells UC25, UC29S and UC26S suggest that a contributing contaminant source may persist in the unconsolidated deposits hydraulically upgradient, northeast to east-northeast of these wells. Several borings, and possibly vapor probes, should be installed beneath the building directly upgradient of these wells to determine whether there are any significant accumulations of contamination in the unconsolidated deposits in this area that might be contributing to contamination of the groundwater. The results of

this exploration should be interpreted prior to evaluating the best location for further tests related to potential remediation by soil-vapor extraction.

## **References**

### *UniFirst Reports*

Draft Pre-Design Work Plan, Remedial Design and Remedial Action for the Unconsolidated Deposits beneath the UniFirst Property, Wells G&H Site, Woburn Massachusetts. Prepared for UniFirst Corporation by Water Waste & Land, Inc., ENSR Consulting and Engineering, Gradient Corporation, and Environmental Project Control, Inc., November 13, 1992.

Interim Data Report. Analyses for Petroleum-Hydrocarbon Characterization of Unconsolidated Deposits, DNAPL and Bituminous Concrete from the UniFirst Property, Prepared for UniFirst Corporation by Environmental Measurements Assessment and Applied Groundwater Research, Ltd., January 28, 1994.

### *Correspondence*

Letter from Jeffrey T. Lawson, Environmental Project Control, Inc. to Ms. Mary Garren of U.S. EPA—Region I, Boston, Massachusetts. Letter describing additional work and schedule for the RD/RA of the Unconsolidated Deposits at the UniFirst Corporation Property, Wells G&H Site, Woburn, Massachusetts, October 28, 1993, 9 pages.

Letter from Paula Fitzsimmons, U.S. EPA—Region I, Boston Massachusetts to Jeffrey Lawson, Environmental Project Control, Inc. Letter responding to concerns raised regarding work on the unconsolidated deposits at the UniFirst Property during meetings on May 7 and June 30, 1993. Letter dated July 12, 1993, 2 pages.

**TABLE 1**  
**UNIFIRST PROPERTY**  
**UNCONSOLIDATED-DEPOSITS INVENTORY OF SAMPLING AND ANALYSES**

Location	Sample I.D.	Depth (ft)	Chemical Analyses *			Physical Analyses				
			MeOH-Pres. VOA	Semi- VOA	PCB/ Pesticide	Grain-Size	Falling-Head Permeameter	Bulk Density	Specific Gravity	Moisture Content
<b>BORINGS</b>										
<b>UC27</b>	C273A	4.0-6.0	•	•	•					
	C276A	10.0-12.0	•							
<b>UC28</b>	C281A	0.0-2.0	•							
	C284A	6.0-8.0	•	•	•	•				•
<b>UC29D</b>	29D1A	0.0-2.0	•							
	29D3A	4.0-6.0	•							
	29D5A	8.0-10.0	•							
	29D5B	8.0-10.0	•							
<b>UC30</b>	C301A	0.0-2.0	•							
	C303A	4.0-6.0	•							
	C305A	8.0-10.0	•							
	C307A	12.0-14.0	•							
<b>TEST PITS</b>										
<b>TPH</b>	TPH1A	0.5	•							
	TPH2A	4.6	•							
	TPH9A	4.8	•							
	TPH11A	5.5	•							
<b>TPI</b>	TPI1A	0.5	•							
<b>TPJ</b>	TPJ1A	3.0	•			•	•	•	•	•
	TPJ2A	3.0				•	•			•
	TPJ3A	4.5				•				•
<b>TPK</b>	TPK1A	1.8				•	•	•		•
	TPK2A	2.8				•	•	•		•
	TPK3A	3.3				•	•	•	•	•
	TPK4A	4.1				•	•	•		•
	TPK5A	4.8				•	•	•		•
	TPK6A	4.1				•		•	•	•
	TPK7A	4.1				•		•		•
	TPK8A	4.1				•		•		•

**TABLE 1**  
**UNIFIRST PROPERTY**  
**UNCONSOLIDATED-DEPOSITS INVENTORY OF SAMPLING AND ANALYSES**

Location	Sample I.D.	Depth (ft)	Chemical Analyses *			Physical Analyses				
			MeOH-Pres. VOA	Semi- VOA	PCB/ Pesticide	Grain-Size	Falling-Head Permeameter	Bulk Density	Specific Gravity	Moisture Content
TPK	TPK9A	4.1				•		•		•
(cont'd)	PK10A	4.4	•	•	•	•	•	•	•	•
	PK10B	4.4	•	•	•					
	PK11A	2.9	•			•	•			•
	PK12A	1.9	•			•	•			•
TPL	TPL1A	3.2	•			•	•	•		•
	TPL2A	1.8				•	•			•
	TPL3A	1.4				•	•	•	•	•
	TPL4A	2.2	•	•	•	•	•	•		•
	TPL5A	3.7	•							

\* MeOH-Pres = Field-Preserved in Methanol, Analyzed by VOA CLP method.

Semi-VOA = Analyzed by CLP Method for Semi-Volatile Organics.

PCB/Pesticide = Analyzed by CLP Method for Polychlorinated Biphenyls and Pesticides.

**Table 2**  
**Well Construction Summary**  
**December 1993 Installations**  
**UniFirst Property**

Well I.D.	Well Type	Ground Elevation* (feet)	Top of Screen Depth (feet)	Bottom of Screen Depth (feet)	Top of Sand Pack Depth (feet)	Bottom Sand Pack Depth (feet)	Top of Screen Elevation* (feet)	Bottom of Screen Elev.* (feet)	Top of Sand Pack Elev.* (feet)	Bottom of Sand Pack Elev.* (feet)
UC26S	2-inch PVC	69.19	9.0	15.8	8.0	16.0	60.2	53.4	61.2	53.2
UC26D	2-inch PVC	69.11	29.8	34.8	28.8	35.0	39.3	34.3	40.3	34.1
UC29S	2-inch PVC	70.82	10.0	16.8	9.0	17.0	60.8	54.0	61.8	53.8
UC29D	2-inch PVC	70.71	19.8	24.8	18.8	25.0	50.9	45.9	51.9	45.7
UC30	2-inch PVC	73.78	9.0	14.8	8.0	15.0	64.8	59.0	65.8	58.8
UC31S	2-inch PVC	69.46	11.0	17.2	10.0	18.0	58.5	52.3	59.5	51.5
UC31M	2-inch PVC	69.21	28.8	33.8	27.8	34.0	40.4	35.4	41.4	35.2
UC31D	2-inch PVC	69.32	46.8	51.8	45.8	52.0	22.5	17.5	23.5	17.3

\* Elevation in feet above National Geodetic Vertical Datum (NGVD)

March, 1994 Interim Data Report

**Table 3**  
**Summary of Physical Properties Results**  
 (from: GEI Consultants Report)

Sample Number	Sample Screening ppm <sup>1.</sup>	Water Content %	Total Density gm/cm <sup>3</sup>	Dry Density gm/cm <sup>3</sup>	Specific Gravity	Grain Size Summary*		
						Gravel <sup>2</sup> %	Sand <sup>2</sup> %	Fines <sup>3</sup> %
C284A	0	6.5				5.7	68.6	25.7
PK10A	0	7.5	1.89	1.76	2.67	1.6	81.9	16.5
PK11A	3	3.0				36.2	57.1	6.7
PK12A	5	5.6				23.9	60.5	15.6
TPJ1A	0	8.8	1.87	1.72	2.68	0.1	72.9	27.0
TPJ2A	0	3.7				56.7	37.5	5.8
TPJ3A	0	10.2				1.3	89.0	9.7
TPK1A	2	5.5	2.05	1.94		26.6	58.8	14.6
TPK2A	0	7.3	1.89	1.76		7.1	68.9	24.0
TPK3A	0	8.2	2.34	2.17	2.69	4.4	61.6	34.0
TPK4A	2	8.7	2.11	1.94		15.6	61.1	23.3
TPK5A	0	7.1	2.00	1.86		0.6	82.4	17.0
TPK6A	0	9.5	2.17	1.99	2.67	5.7	63.0	31.3
TPK7A	0	6.5	1.92	1.80		2.1	80.4	17.5
TPK8A	0	7.3	1.69	1.57		12.5	69.3	18.2
TPK9A	0	8.3	1.97	1.82		8.9	71.3	19.8
TPL1A	6	5.6	1.84	1.74		8.3	74.2	17.5
TPL2A	0	4.2				15.9	66.3	17.8
TPL3A	0	6.0	1.65	1.56	2.68	0.7	75.2	24.1
TPL4A	0	5.5	1.68	1.59		20.7	59.4	19.9

Notes: \* See enclosed Grain Size Distribution.

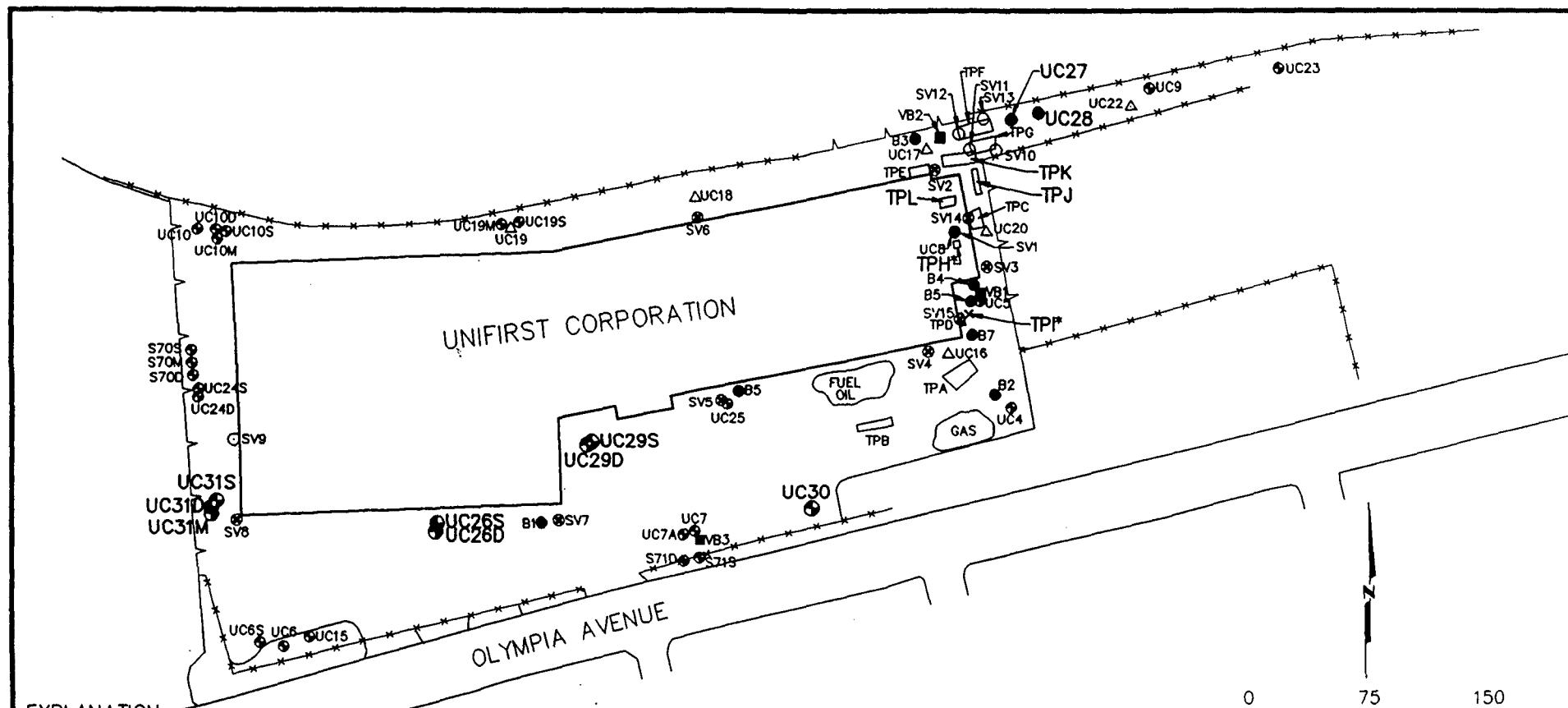
- 1) Gravel>4.75mm.
- 2) 4.75mm>Sand>0.074mm.
- 3) 0.074mm>Fines.

1. Units of "ppm" provided by contractor (GEI), as headspace screening results using an organic vapor meter per Massachusetts Department of Environmental Protection Procedure WSC-400-89 (8/90).

**Table 4**  
**Summary of Falling-Head Permeameter Results**  
 (from: Colorado State University Report)

SAMPLE	DRY BULK DENSITY IN TEST CELL g/cm <sup>3</sup>	HYDRAULIC CONDUCTIVITY @ 20°C cm/s
TPK 1A	1.94	6.4 X 10 <sup>-5</sup>
TPK 2A	1.76	5.6 X 10 <sup>-4</sup>
TPK 3A	1.90*	3.5 X 10 <sup>-5</sup>
TPK 4A	1.94	1.4 X 10 <sup>-5</sup>
TPK 5A	1.86	9.3 X 10 <sup>-5</sup>
PK 10A	1.76	2.5 X 10 <sup>-4</sup>
TPJ 1A	1.71	6.6 X 10 <sup>-5</sup>
TPL 1A	1.74	2.3 X 10 <sup>-3</sup>
TPL 3A	1.56	3.3 X 10 <sup>-3</sup>
TPL 4A	1.59	3.9 X 10 <sup>-3</sup>
PK 11A	1.93	3.5 X 10 <sup>-4</sup>
PK 12A	1.85	1.7 X 10 <sup>-4</sup>
TPJ 2A	1.81	6.7 X 10 <sup>-4</sup>
TPL 2A	1.88	6.2 X 10 <sup>-4</sup>

\* Repacked bulk density less than the target value of 2.16 g/cm<sup>3</sup>. Wasn't able to pack to target density.



3140A55B  
REV. DATE: 3/9/94

#### EXPLANATION

- x SURFACE SAMPLE ONLY
- TPB TEST PIT
- SOIL BORING
- (x) DRIVE POINT VAPOR PROBE LOCATION
- (o) FORMER DRIVE POINT VAPOR PROBE LOCATION
- (•) 2 INCH MONITORING WELL
- (■) VAPOR BORING (WINTER 1989)
- (△) 6-INCH WELL OPEN IN ROCK;  
UC22 IS AN 8-INCH WELL
- \* APPROXIMATE LOCATION

#### NOTES:

- 1) LOCATIONS FROM A SURVEY BY BSC GROUP OF BOSTON, MA.
- 2) WELL TYPES FROM DRAWINGS BY ENSR CONSULTING & ENGINEERING
- 3) BASE MAP PRODUCED BY GEOTRANS, INC OF HARVARD, MA  
FROM AERIAL SURVEY BY COL-EAST, INC. OF NORTH ADAMS, MA.

0 75 150  
SCALE IN FEET



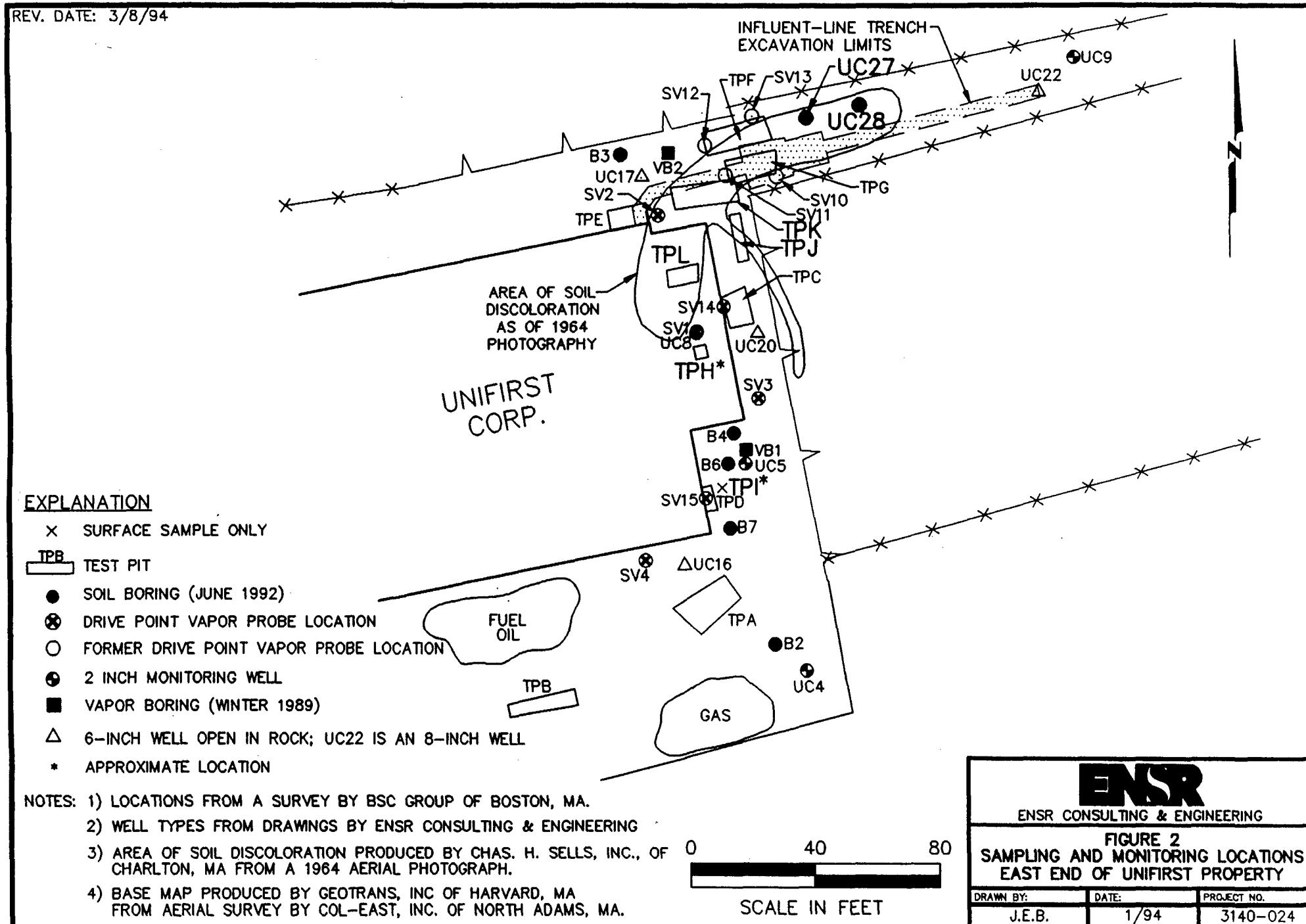
ENSR CONSULTING & ENGINEERING

FIGURE 1  
UNIFIRST PROPERTY BORING  
MONITORING WELL AND TEST PIT LOCATIONS

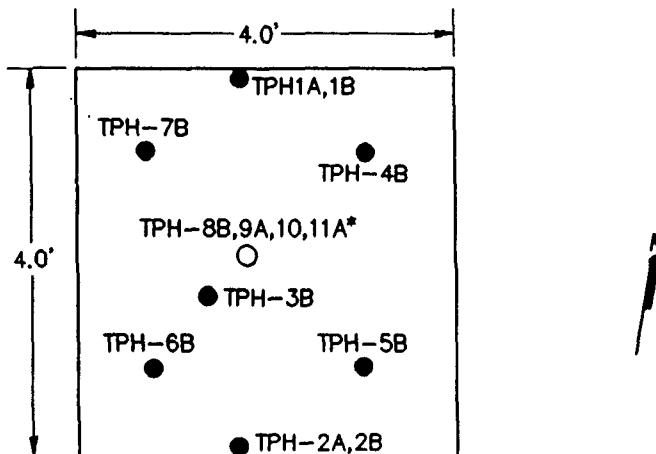
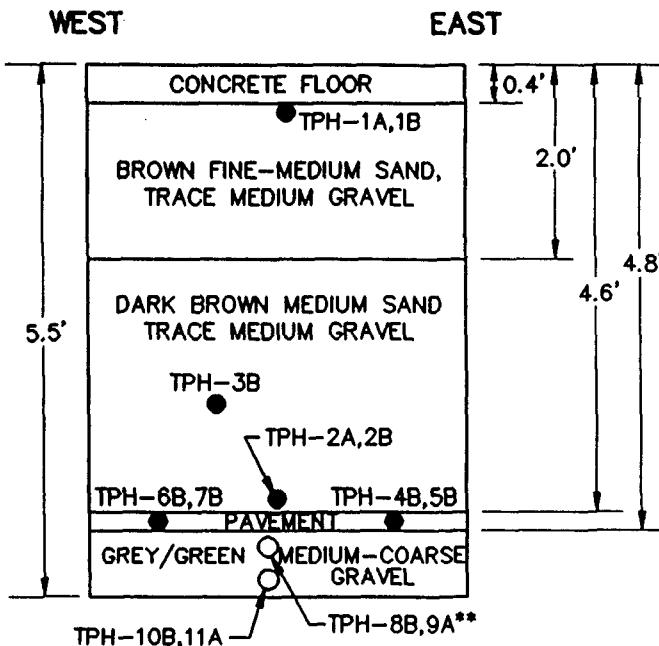
DRAWN BY:	DATE:	PROJECT NO.
J.E.B.	1/94	3140-024

3140A19A

REV. DATE: 3/8/94



3140A20A



0 2 4

SCALE IN FEET  
1" = 2'

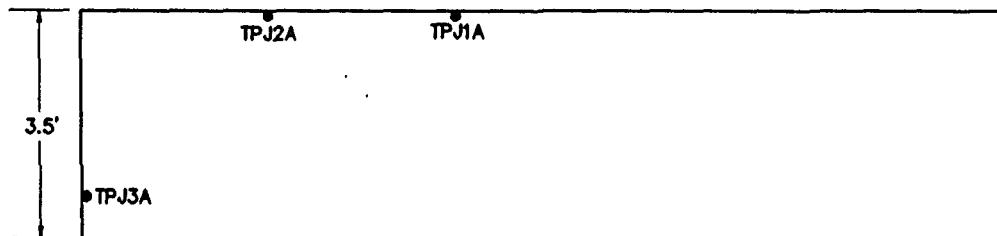
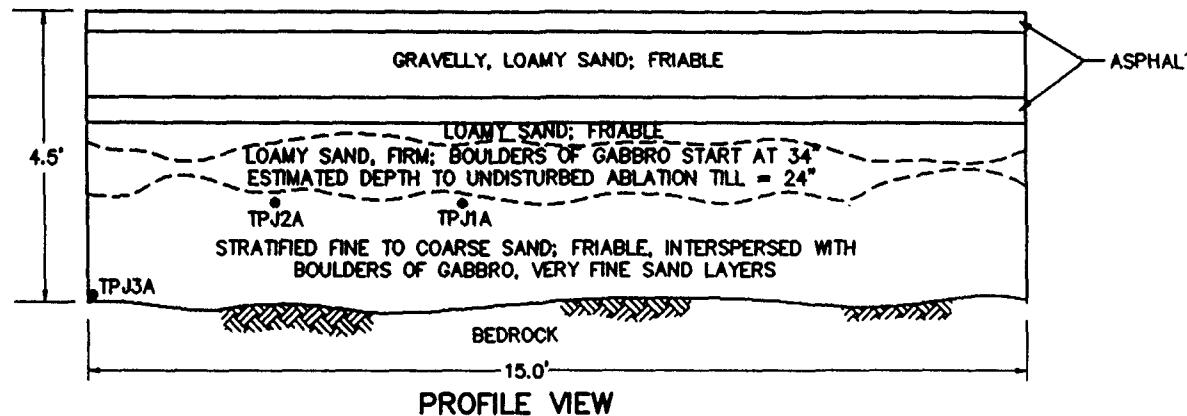
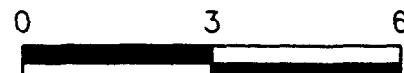
\*NOTE: SAMPLES TPH-8B,9A,10B,11A WERE COMPOSITE SAMPLES TAKEN  
FROM LOCATIONS DISTRIBUTED ACROSS THE BOTTOM OF TEST PIT.

FIGURE 3  
SCHEMATIC OF SAMPLING LOCATIONS  
TEST PIT H  
UNIFIRST PROPERTY

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SOUTH

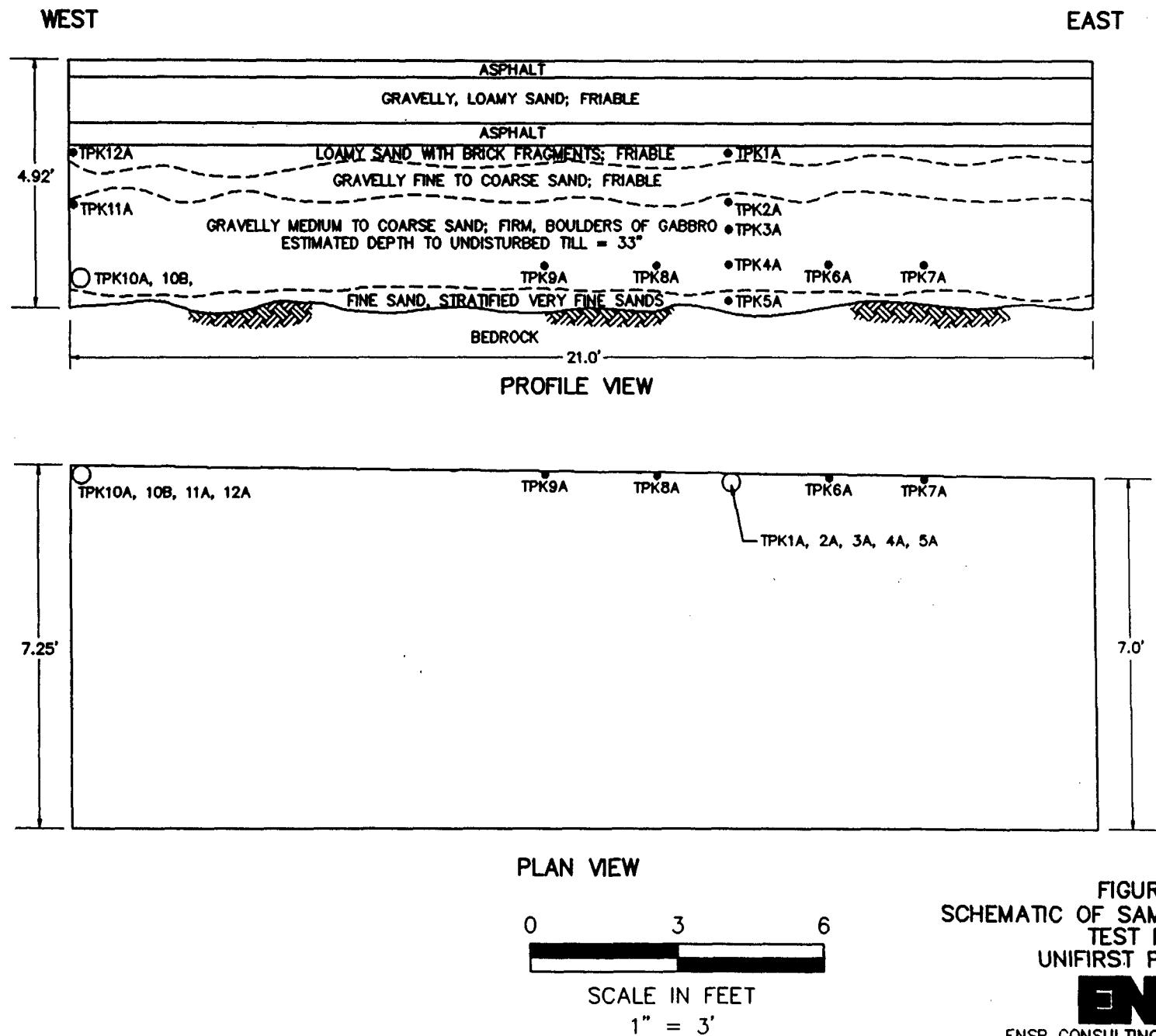
NORTH

**PLAN VIEW**

SCALE IN FEET  
1" = 3'

**FIGURE 4**  
**SCHEMATIC OF SAMPLING LOCATIONS**  
**TEST PIT J**  
**UNIFIRST PROPERTY**

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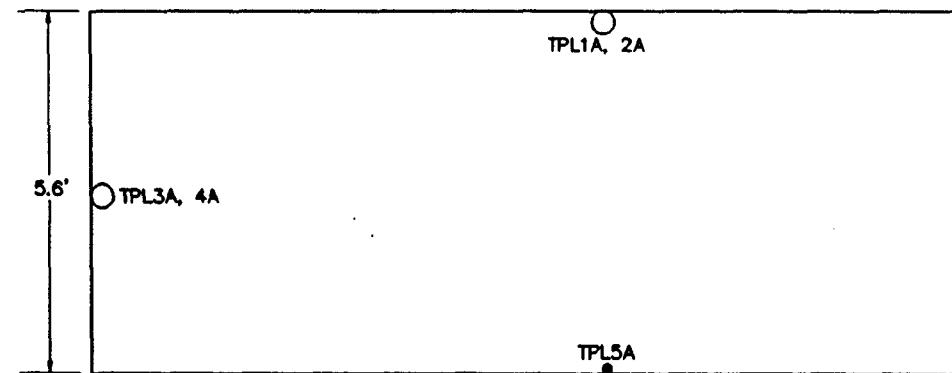
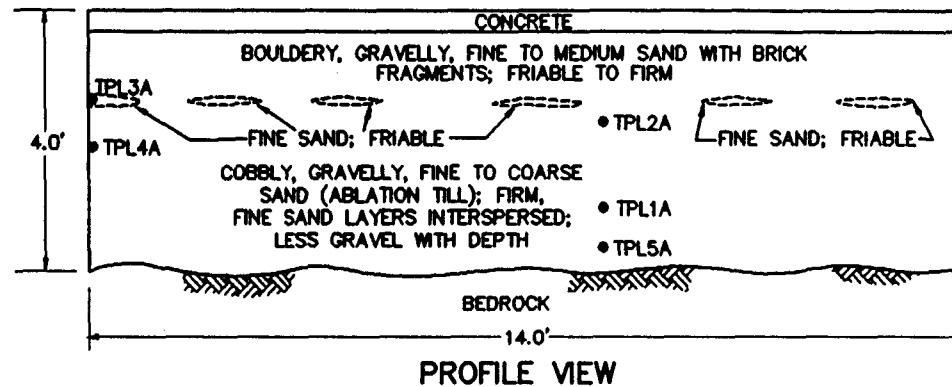
**FIGURE 5**  
**SCHEMATIC OF SAMPLING LOCATIONS**  
**TEST PIT K**  
**UNIFIRST PROPERTY**

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3140A23A

WEST

EAST



0 3 6

SCALE IN FEET

1" = 3'

FIGURE 6  
SCHEMATIC OF SAMPLING LOCATIONS  
TEST PIT L  
UNIFIRST PROPERTY

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**APPENDIX A**

**Field Logs**

## **APPENDIX A-1      Test-Pit Logs**

Note: no log is provided for location TPI, which consisted of a surface sample of Bituminous concrete and the immediately underlying unconsolidated deposits.

Project Unifirst Site Wells G+H TEST PIT H Sh 1 of 1  
 Date 7/24/93 Location Woburn, MA Ground Elevation \_\_\_\_\_  
 Total Depth 66" Contractor Franklin Environmental  
 Equipment Used concrete saw, bobcat, shovel Logged by A.R. Kiel  
 Remarks No odor noticed in pit, fill was uniform, Asphalt on old dock level was  
 in good condition.

Elev. Feet	Depth Feet	Sample		Soil & Rock Description & Comments
		Type & No.	Depth Range	
			0 - 5"	reinforced concrete
- .5		TPH-1A (Cuoc)		brown fine and medium SAND
- 1		TPH-1B (Svoc)	5" - 24"	with trace medium gravel
- 1.5				NOTE: Samples were taken just below the concrete.
- 2				
- 2.5			24 - 55"	dark brown medium SAND
- 3				with 10% medium rounded gravel
- 3.5				
- 4		TPH-2A (Cuoc) TPH-2B (Svoc)		Note: Samples were taken just above the asphalt.
- 4.5		See NOTE below	55 - 58"	Asphalt (former dock level) good condition - solid
- 5		TPH-9A, 11A (vac)	58 - 66"	gray/green medium and coarse GRAVEL
- 5.5		TPH-8B, 10B (svoc)		(clean - No sand intermixed)
				bottom of pit : 66"
				NOTE: Samples of Asphalt taken : TPH-4B TPH-5B } HC Fprint TPH-6B } (svoc) TPH-7B }

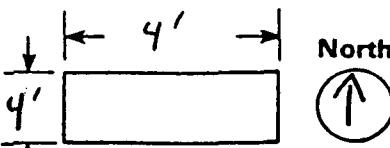
Test Pit Plan	Groundwater		
	Date	Time (Hours After Completion)	Depth (Feet)
			

Figure 1 Test Pit Log

## TEST PIT LOG

Sheet 1 of 1

Project No. 3140-024-050 Date 12/2/93 Test Pit TPJ  
 Project Name Unifirst/KCD RD/RRA Location NE corner of bldg, near TPJ Ground Elev.  
 Total Depth 54" Contractor Franklin Environmental  
 Equipment Used backhoe Logged By J. Wissman  
 Remarks maximum H2O reading = 5 ppm just below surface of asphalt, no groundwater encountered

Elev. Feet	Depth Feet	Sample		Soil & Rock Description & Comments
		Type & No.	Depth Range (in)	
			0-4	asphalt
-1			4-16	gravelly loamy sand 2.5Y 6/4 friable
-			16-20	asphalt
-2			20-24	loamy sand 2.5Y 3/2 friable
-			24-34	loamy sand 2.5Y 5/4 firm; boulders of gabbro start @ 34"
-3			34-54	estimated depth to undisturbed ablation till - 34" stratified fine to coarse sand, friable 2.5Y 7/2 interspersed w/ boulders of gabbro, very fine sand layers
-4				Sample TPJ1A, undisturbed, collected @ 36" for bulk density, additional sample collected for moisture content, grain size and permeability (will be repacked), VOC CLP (methanol)
-5				Sample TPJ2A, also collected @ 36", between gabbro boulders, for grain size, moisture content, permeability (repacked)
				Sample TPJ3A, weathered (firm) gabbro, for moisture content . and grain size

Test Pit Plan		Groundwater		
Date	Time (Hrs. after Completion)	Depth (Feet)		

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## TEST PIT LOG

Sheet 1 of 2

Project No. 3140 - 024 - 050 Date 12/2/93 Test Pit TPK  
 Project Name Unifirst/UCD RD/RA Location NE corner of bldg, near TPE Ground Elev.  
 Total Depth 59" Contractor Franklin Environmental  
 Equipment Used backhoe Logged By J. Wiseman  
 Remarks materials w/ HTH reading greater than 10 ppm segregated (~3yds<sup>3</sup>), greatest reading was 79 ppm @ 3.5' b.g.s. Only physical samples collected today. No groundwater encountered

Elev. Feet	Depth Feet	Sample		Soil & Rock Description & Comments
		Type & No.	Depth Range (in)	
	0-4			asphalt
-1	4-16			gravelly loamy sand 2.5Y 6/4 friable
-2	16-24			asphalt
-2	20-24			loamy sand w/ brick fragments friable 2.5Y 3/2 Sample TPK 1A collected for bulk density (undisturbed) moisture content, grain size, permeability at 22"
-3	24-33			gravelly fine to coarse sand, friable 2.5Y 5/4 Sample TPK 2A collected for bulk density (undisturbed) moisture content, grain size, permeability @ 33"
-4	33-56			gravelly medium to coarse sand firm, 2.5Y 6/2, boulders of gabbro Sample TPK 3A collected, same parameters as above @ 40" Sample TPK 4A collected, same parameters as above @ 41" estimated depth to undisturbed till - 33"
-5	56-59			fine sand, stratified very fine sands Sample TPK 5A collected @ 57", same parameters as above  Sample TPK 6A collected 24" east of 4A, same parameters as above except permeability  Sample TPK 7A collected 48" east of 4A, same parameters as above except permeability  Sample TPK 8A collected 18" west of 4A, same parameters as above except permeability  Sample TPK 9A collected 45" west of 4A, same parameters as above except permeability

Test Pit Plan		Groundwater		
Date	Time (Hrs. after Completion)	Depth (Feet)		

Project No. 3140-024-050

Date 12/3/93 Test Pit TPK

Project Name UniFirst/UCD RD/RA

Location NE Corner of Bldg; near TPE Ground Elev.

Total Depth 59"

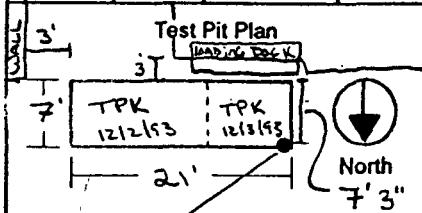
Contractor Franklin Environmental

Equipment Used Backhoe

Logged By J. Wiseman

Remarks TPK 12/2/93 extended 5' west on 12/3/93. Samples Collected 21' west of east pit wall, Sample South wall of P.t. No Haze readings detected above background (0.0 units), no groundwater encountered.

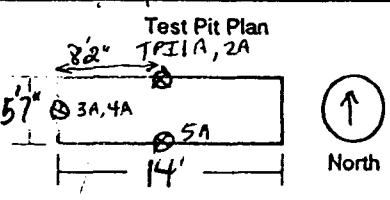
Elev. Feet	Depth Feet	Sample		Soil & Rock Description & Comments
		Type & No.	Depth Range (in)	
-1				Refer to Test Pit Log TPK 12/2/93
-2	23"			Sample PK12A 23" BGS for falling head permeometer, Sieve and hydrometer, moisture content, VOC (CLP) Methanol preserved
-3	35"			Sample PK11A 35" BGS for falling head permeometer, Sieve and hydrometer, moisture content, VOC (CLP) Methanol preserved
-4				
-5	53"			Bottom of Test Pit at 53"  Sample PK10A 53" BGS for falling head permeometer, bulk density, sieve and hydrometer, moisture content, VOC (CLP) methanol preserved, pesticide, PCB, SVOC (CLP)  Sample PK10B 53" BGS for VOC (CLP) methanol preserved, pesticide, PCB, SVOC (CLP)  Sample PK10C 53" BGS for Pesticide, PCB, SVOC (CLP) Sample PK10Q 53" BGS for VOC (CLP) methanol preserved. Sample PK10T 53" BGS for VOC (CLP) methanol preserved.



Groundwater		
Date	Time (Hrs. after Completion)	Depth (Feet)

M890249 TPK10 53" BGS  
TPK11 35" BGS  
TPK12 23" BGS

Project No. 3140-024-050 Date 12/3/93 Test Pit TPX L su 1.13194  
 Project Name Confirst / VCD RD/2A Location inside bldg; loading dock area Ground Elev.  
 Total Depth 48" Contractor Franklin Environmental  
 Equipment Used bobcat Logged By J. Wiseman  
 Remarks

Elev. Feet	Depth Feet	Sample		Soil & Rock Description & Comments
		Type & No.	Depth Range (in)	
			0-4	concrete
1			4-16	bouldery, gravelly fine to medium sand w/ brick fragments 2.5 Y 5/4 friable to firm
			16-17	fine sand 5 Y 7/3 friable
2			17-48	cobbly, gravelly fine to coarse sand (ablation till) 5 Y 6/1 firm fine sand layers interspersed; less gravel w/ depth
3				Sample TPI 1A, 38" below concrete surface for VOC-CLP Bulk density, moisture content, grain size, permeability
				Sample TPI 2A, 21" below concrete surface for permeability moisture content, grain size
				Sample TPI 3A, bulk density ~17" below concrete in sand layer permeability, grain size, moisture content
				Sample TPI 4A, bulk density, permeability, moisture content grain size, below 3A, 26" below concrete surface VOC-CLP, Pest/PCB, SVOC
				Sample TPI 5A, 44" below concrete surface, on top of gabion for VOC
Test Pit Plan		Groundwater		
		Date	Time (Hrs. after Completion)	Depth (Ft.)

**APPENDIX A-2      Boring Logs**

December, 1993 Field Investigation

Project No. 05.01 Date - Start 12/6/93 Finish 12/8/93 Boring UC21eS  
Project Name Unifirst/UCA RD/RA Drilling Co. D.L. Maher  
Location Wells 5 & 6 Woburn MA Drilling Method 4 1/4" HSA  
Total Depth 16' Inspector J. Howe Reviewer S. Parsons  
Remarks Re refusal twice at 11 feet

Depth Feet	Sample				Graphic Log	Lithologic Description	Equipment Installed
	Type & No.	Blows per 6 In.	Depth Range	Rec.			
5						See UC 26D log	
10							
15							
20						EOR 16'	
25							
30							
35							
40							
45							
50							
55							
60							
65							
70							
75							
80							
85							
90							
95							
100							

Project No. 05.01 Date - Start 12/1/93 Finish 12/3/93 Boring UC26D

Project Name Unifirst /VCD RD/RA Drilling Co. D.L. Maher

Location Unifirst site property Drilling Method 4'x4' HSA

Total Depth 35' Inspector J. Howe

Reviewer J. Powers

Remarks Weather - clear 40°

\* hit refusal at 10', assumed cobble - moved west 5', continue logging on same sheet

Depth Feet	Sample				GCR Graphic log ppm	Lithologic Description	Equipment Installed
	Type & No.	Blows per 6 in.	Depth Range	Rec.			
	S-1	21-32-21-20	0-2'	8"	0.0	5.5" concrete 8" fill - fm SAND, some gravel, cobbles DRY	
5'	S-2	8-11-18-100 5-4"	5.7'	18"	0.0	H.tan m SAND, trace cobbles and silt DRY refusal - assumed cobble	
Refusal at 10'	S-3	25- 100 fm 5"	10-12'	11"	0.0	brown m-c SAND some gravel moist, silty fines refusal on assumed cobble	
15'	S-4	41-47-40- 39	15-17'	16"	0.0	brown m/c SAND, some gravel, rock frags WET	▼
20'	S-5	100 fm 5"	20-22'	5"	1.1 Background 2" 0.4	n/8' increased amount of large cobbles 5" grey f/m sand, some silt, cobbles brown m/c SAND, some cobbles refusal on cobble	WET
25'	S-6	21-27- 100 fm 0"	25-27'	8"	7.7 0.6 Background	Basal till: grey silty f.SAND, trace gravel WET dense	
30'	S-7	from bottom of core	n-29-31	21"	0.0	n/29' 7" of boulder core thru basal till, very dense grey silty f.SAND, cobbles WET	
	S-8	36-61-34-72	30-32'	21"	0.8	Same	
	S-9	30-53-50- 96	33-35'	20"	0.0	same lodgement till	
35'						EOB 35'	

**ENSR****BORING LOG**

Sheet 1 of 1

Project No. 01.03

Date - Start 12/3/93

Finish 12/6/93

Boring UC27

Project Name Unifirst LCD RD/RA

Drilling Co. D.L. Manur

Location Unifirst Site Property

Drilling Method 4 1/4" HSA

Total Depth 12.5'

Inspector J.L. Wiseman

Reviewer J. Hawe

Remarks 3" Split Spoon

Background = 0.00m

Depth Feet	Sample				DVM Graphics Log ppm	Lithologic Description	Equipment Installed
	Type & No.	Blows per 6 In.	Depth Range	Rec.			
	S-1	7-10-10-10	0-2'	20"	2.8	weathered top soil - roots FILL - dark brown f/m SAND some cobbles moist	
	S-2	9-22-19-17	2-4'	9"	15.0	same FILL	
5	S-3	10-13-17-50	4-6'	10"	87.4	concrete, same -fill	Sample
	S-4	23-35-29-36	6-8'	16"	38.7	brown f/m SAND, some gravel, trace cobbles moist	4275 14:00
10	S-5	23-25-50-68	8-10'	18"	27.9	brown m SAND and gravel, trace cobbles, matting moist	K276F 14:35
	S-6	"-37-40-44	10-12'	20"	96.0	same, moist	
	S-7	100 to 0"	12-14'	5"	53.9	Cover material - gray silty SAND, some m sand + gravel	
15						Auger refusal 12.5'	
20							

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## BORING LOG

Sheet 1 of 4

Project No. 01-03

Date - Start 12/6/93

Finish 12/7/93

Boring OC 28

Project Name Unifirst/VCA RD/RA

Drilling Co. D. Maher

Location Wells G+H, Woburn, MA

Drilling Method 1 1/4" HSA

Total Depth Inspector J. Howe

Reviewer J. Powers

Remarks background 1.7 ppm

Depth Feet	Sample				DUM Graphic Log APM	Lithologic Description	Equipment Installed
	Type & No.	Blows per 6 In.	Depth Range	Rec.			
	S-1	5-10-18-17	0-2'	10"	1.7	FILL - asphalt, black tar-like material, concrete cobbles brown in SAND, some bubbles moist	10:0 C281
	S-2	7-6-8-6	2-4'	15"	1.0	reddish-brown in SAND, some fill - dark brown in sand with some black tar and asphalt moist	
5	S-3	13-31-36-25	4-6'	17"	0.0	brown in SAND and GRAY, some cobbles, trace rock frags. moist	
	S-4	24-28-27 -27	6-8'	20"	1.0	same	5-4 C284 10:0
	S-5	15-37-100 ft	8-10'	12"	0.1	Brown from SAND, trace silt + gravel, mottling moist	
10	S-6	19-77-100 for 6"	10-12'	8"	0.0	same	
15						Auger refusal 11.5'	

**ENSR****BORING LOG**

Sheet 1 of 1

Project No. 05.01

Date - Start 12/8/93 Finish 12/9/93 Boring UC295

Project Name Unifirst/UCD RD/RA

Drilling Co. D.L. Maher

Location Unifirst Site, in front of Storage Dept.

Drilling Method 4 1/4" HSA

Total Depth 17'

Inspector J. Howe

Reviewer J. Powers

Remarks \_\_\_\_\_

Depth Feet	Sample				Graphic Log	Lithologic Description	Equipment Installed
	Type & No.	Blows per 6 In.	Depth Range	Rec.			
5							
10							
15							
17						See UC29D	
20						EOB at 17'	

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## BORING LOG

Sheet 1 of 1

Project No. 05.01

Date - Start 12/7/93

Finish 12/7/93

Boring UC29D

Project Name Unifirst/UCA RD/EA

Location Well 6+H, Woburn, on-site

Total Depth 28' Inspector J. Howe

Remarks Backgravel = 4 ppm

Bored 3-8, gravel in shoe - Auger to 25' BGS, boring complete.

Depth Feet	Sample				GVM Graphic Log. PPM	Lithologic Description	Equipment Installed
	Type & No.	Blows per 6 In.	Depth Range	Rec.			
	S-1	9-17-17-23	0-2'	10"	2.0	6" pavement Fill - brown m sand some gravel, asphalt	0-2' 290A 13:30
	S-2	34-52-33-25	2-4'	15"	0.0	Same	2-4' 2903A 14:00
5	S-3	20-54-46-25	4-6'	8±5"	0.0	Same - fill	
	S-4	2-4-6-8	6-8'	19"	2.5	Brown fine sand, trace silt, some mottling, moist	8-10 290A 14:10 2905C
10	S-5	11-19-36-50	8-10'	16"	0.7	6" same brown m sand, some gravel, trace cobbles (WE) mottled	
						- - - - -	
15	S-6	26-38-30-30	15-17'	4"	0.0	brown-gray f-m SAND, some c sand + gravel (WE)	
20	S-7	20-33-28-100 for 5"	20-22'	12"		brown f-m SAND, some c sand and gravel very wet!	
25	S-8	100 in 2"	23-25'	2"		unreal due to gravel gray fine sand and SILT, some gravel, trace weathered Rx	
						EOB at 28'	

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## BORING LOG

Sheet 1 of 1

Project No. 05.61

Date - Start 2/8/93

Finish 2/9/93

Boring UC30

Project Name Unifirst/UC30 RESEA

Drilling Co. D.L. Maher

Location Unifirst Site Property

Drilling Method 4" HSA

Total Depth \_\_\_\_\_ Inspector J. Howe

Reviewer J. Powers

Remarks No background reading from OVM

No size core water recovered - 5.5' grey

\* This log represents the first boring - UC30 is installed in a boring 3' west, to a depth of 15'.  
 This boring was grouted to surface

Depth Feet	Sample			OVM Graphic Log PPM	Lithologic Description	Equipment Installed	Sample for VOC's
	Type & No.	Blows per 6 in.	Depth Range				
	S-1	4-15-40-80	0-2'	15"	0.0	3" pavement FILL - brown m SAND, some cobbles and gravel, asphalt, dry	S-1 C301A 14:30
	S-2	15-40-25-26	2-4'	17"	0.0	Brown f-m SAND, some coarse sand, trace gravel, and cobbles - gill - Dry	
5	S-3	30-21-16-24	4-6'	16"	9.7	same, dry	S-3 C303. 14:50
	S-4	13-20-27-38	6-8'	18"	21.0	brown f-m SAND, some c.sand, trace gravel slightly moist	
	S-5	28-51-100 f.m 3"	8-10'	10"	3.1	brown f-m SAND, trace silt and gravel, dry	S-5 C305. 16:00
10	S-6	16-21-22-25	10-12'	17"	0.9	brown f-m SAND, trace silt and gravel with pockets of dark brown f.sand, some m.sand - FILL dry	
	S-7	24-43-100 f.m 0"	12-14'	12"	0.0	brown m SAND, some gravel, trace cobbles, moist	S-7 C307A 15:30
15	S-8		14-16'			Grinding on rock - no sample	
	RUN 2	RAB = 72.7%	15.5 - 19.6'	3.2'	0.0	15.5-16.4' pink c.grained GRANODIORITE, BR., fresh, low angle fractures trace feldspar in fractures 16.4-17.0' gray/pink, fine-grained GABBRODIORETE, GR-V.BR., slightly weathered, low angle fractures, sharp contacts 17.0-19.5' pink c.grained GRANODIORITE, same	
20						20' B at 19.5'	

**ENSR**

# **BORING LOG**

Sheet 1 of 1

Project No. 05.01 Date - Start 12/14/93 Finish 12/14/93 Boring UC315  
Project Name Unifirst (UC) ROLRA Drilling Co. D.L. Maher  
Location Wells G+H Woburn, MA Drilling Method 4 1/4" HSA  
Total Depth 18' Inspector J. Howe Reviewer J. Powers  
Remarks Well installed in second borehole - 1st try was UC31SA

Depth Feet	Sample				Graphic Log	Lithologic Description	Equipment Installed
	Type & No.	Blows per 6 In.	Depth Range	Rec.			
5							
10						See UC31M	
15							
20						EGB 18'	

**ENSR****BORING LOG**

Sheet 1 of 1

Project No. 05.01

Date - Start 12/10/93

Finish 12/10/93

Boring UC 31M

Project Name Unifirst/UCS RDI RA

Drilling Co. D. C. Maher

Location Wells G+H, Woburn MA, Unifirst Site

Drilling Method 4 1/4" HSA

Total Depth 35.5'

Inspector J. Houz

Reviewer J. Parsons

Remarks Back ground Reading = 0.0 ppm

Depth Feet	Sample				GMR Graphic log- ppm	Lithologic Description	Equipment Installed
	Type & No.	Blows per 6 In.	Depth Range	Rec.			
	S-1	4-7-11-16	0-2'	10"	0.0	Fill - f SAND and SILT, some gravel, dry	
5	S-2	8-26-41-53	5-7'	8"	0.0	2" Same 6" orange brown, f SAND and SILT	
10	S-3	13-35-41-43	10-12'	14"	0.0	3" brown in SAND, some coarse, trace gravel, wet 12" in SAND, some c. sand, gravel and cobbles, mottled	
15	S-4	15-34-42-51	15-17'	18"	0.0	Running Sands - in SAND, some coarse, trace gravel V. WET	
20	S-5	35-75-50- 39	20-22'	20"	0.0	Guy TLL - f in SAND, trace gravel, dense, wet	
25	S-6	45-77-80-80	25-27'	12"	0.0	Same - very wet	
30	S-7	30-60-100 60 4"	30-33'	13"	0.0	Same	
35	S-8	40-100-60 60 4"	35-38'	6"	0.0	Same, increasing clay content E.O.B. at 35' S. refusal	

**ENSR****BORING LOG**

Sheet 1 of 2

Project No. B5.01

Date - Start 10/13/93

Finish

Boring UC31D

Project Name Unifirst/VCD RD/RA

Drilling Co. D.L. Maher

Location Wells G+H Site Woburn, MA

Drilling Method 4 1/4" HSA

Total Depth \_\_\_\_\_

Inspector J. Howe

Reviewer J. Powers

Remarks UC31M was intended to be the deep well, hence the first 35' are logged on the UC31M boring and from 40' on appear on UC31D

Depth Feet	Sample				Graphic Log	Lithologic Description	Equipment Installed
	Type & No.	Blows per 6 In.	Depth Range	Rec.			
5							
10							
15						SEE UC31M FOR FIRST 35'	
20							
25							
30							
35							

**ENSR**Project Unifirst/WCS RD/RA**BORING LOG (continued)**

Boring UC 31 D

Sheet 2 of 2

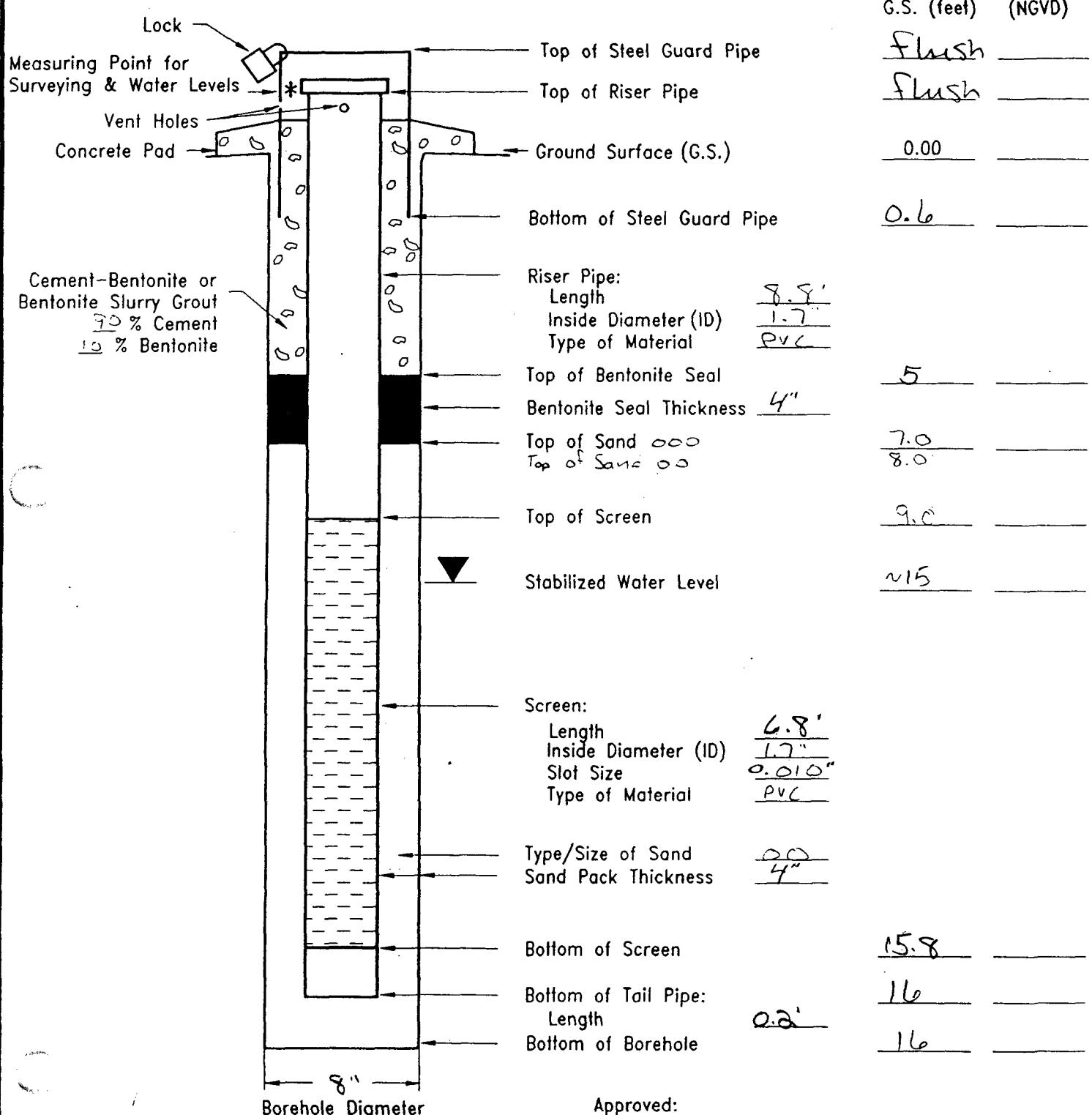
Depth Feet	Sample				GIM Graphic Log ppm	Lithologic Description	Equipment Installed
	Type & No.	Blows per 6 In.	Depth Range	Rec.			
	S-1	31-75-40- 68	40-42'	8"	0.0	Grey fine SAND. Some silt and m sand, trace gravel - WET	
45	S-2	85-95-100 for 2"	45-47'	12"	6.8	same	
50	S-3	36-100 for 5"	50-52'	10"	9.6	Same. more dense	
52						EOB 52'	
55							
60							
65							
70							
75							
80							
85							
90							
95							
100							

**APPENDIX A-3      Well-Construction Logs**

December, 1993 Field Installations

Project No: 05.01 Client: Unifirst Site: Well SG-14, Woburn WELL No: UC2265  
 Well Location: Unifirst Site Property Date Installed: 12/7/93  
 Contractor: D.L. Maher Method: 4 1/4" I-15A Inspector: J. Howe

## MONITORING WELL CONSTRUCTION DETAIL



\* Describe Measuring Point:

Mark on PVC riser

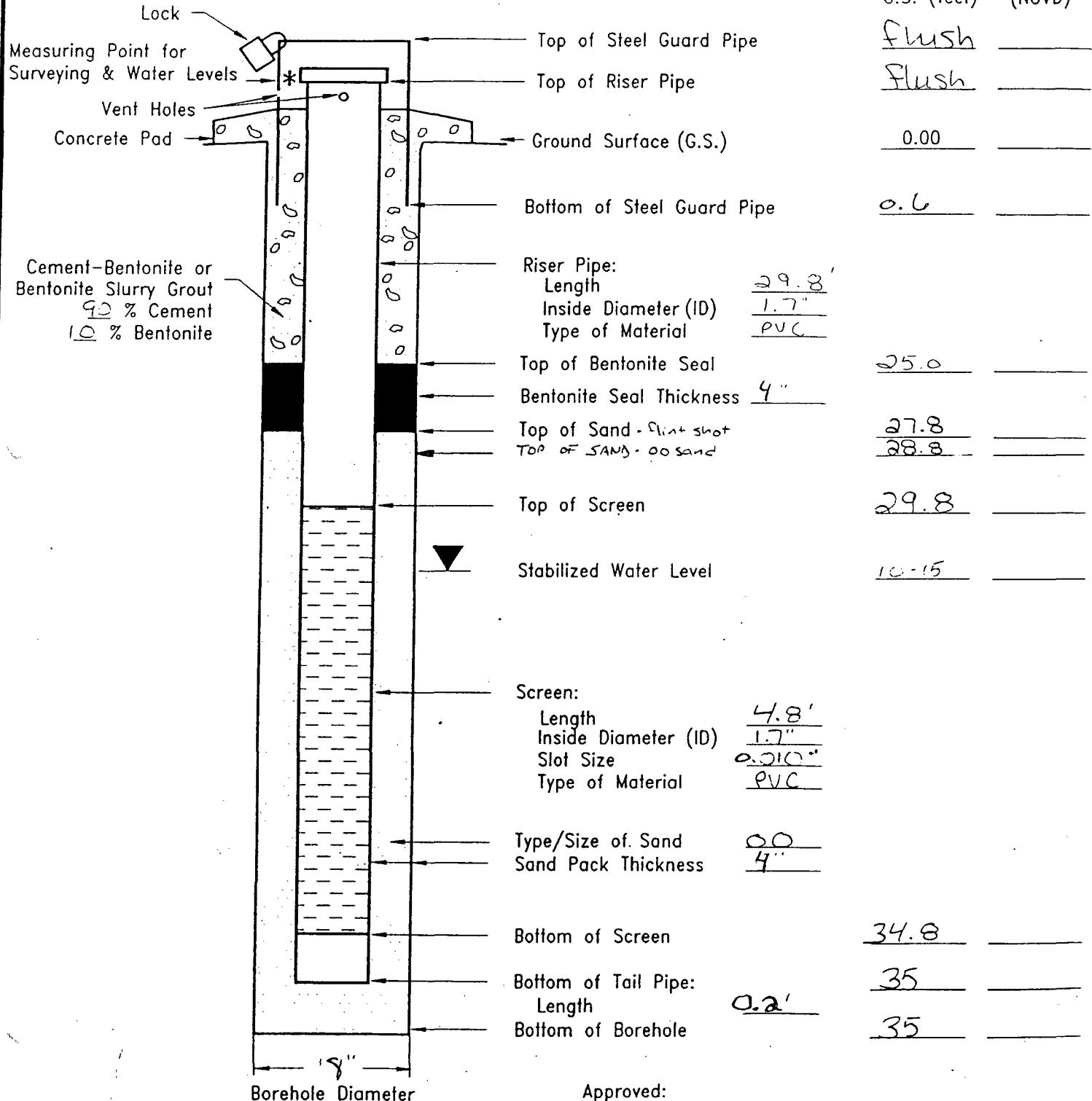
Signature

12/6/93  
Date

ENSR.

Project No: 05-01 Client: Unifirst Site: WELLSGTH Western MA WELL No: UC261D  
 Well Location: Unifirst Site Property Date Installed: 12/3/93  
 Contractor: D.L. Maher Method: 4 1/4" HSA Inspector: J. Howe

## MONITORING WELL CONSTRUCTION DETAIL



Approved:

\* Describe Measuring Point:  
Mark on PVC Riser

Signature

12/3/93  
Date

ENSR

Project No: 05.01

Client: Unifirst

Site: Woods C+H, Woburn, MA

WELL No: UCA95

Well Location: In front of Storage Depot Entrance, Unifirst Site

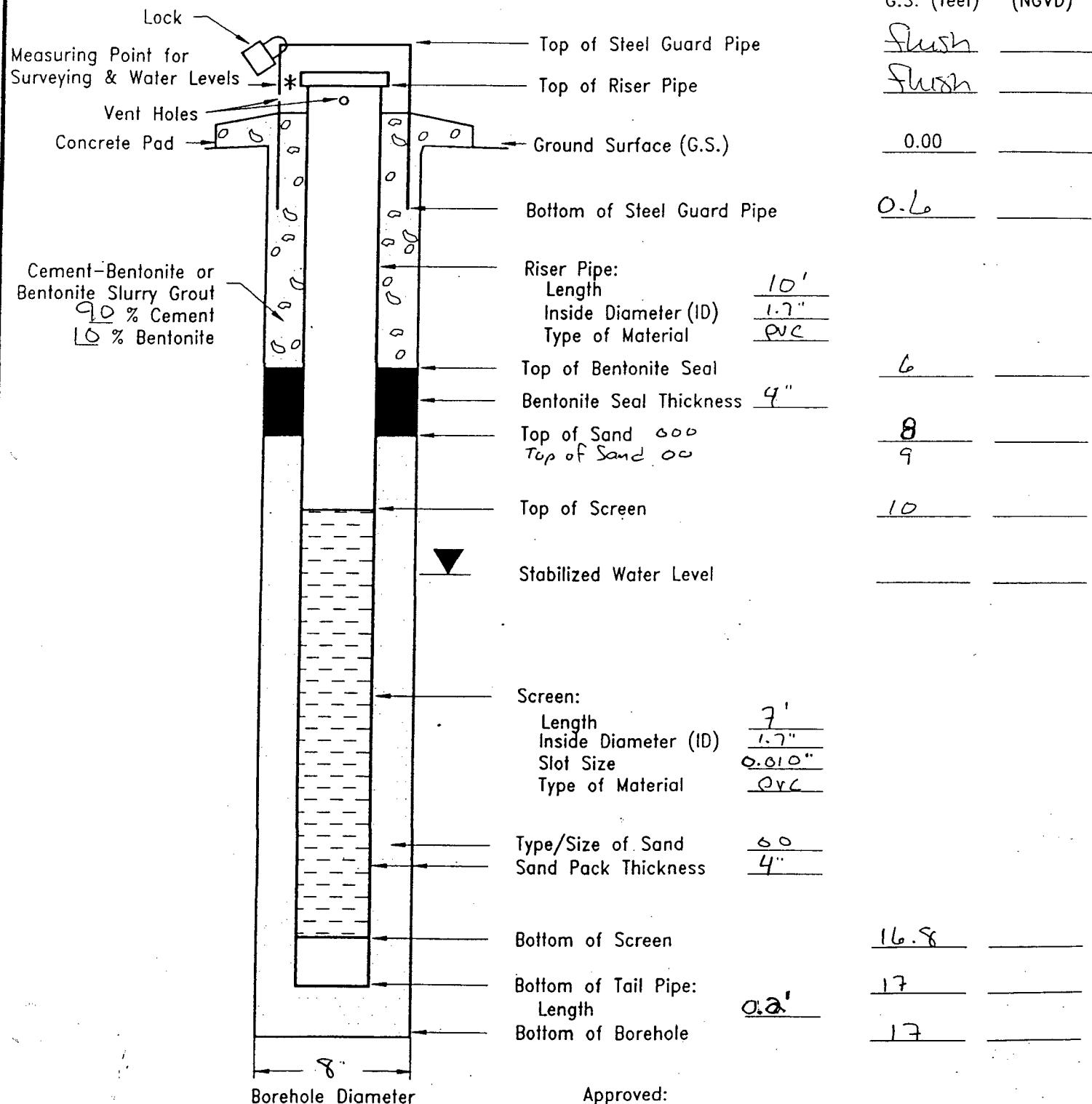
Date Installed: 12/8/93

Contractor: D.L. Maher

Method: 4 1/4" HSA

Inspector: J. Howe

## MONITORING WELL CONSTRUCTION DETAIL



\* Describe Measuring Point:

Mark on PUC Riser

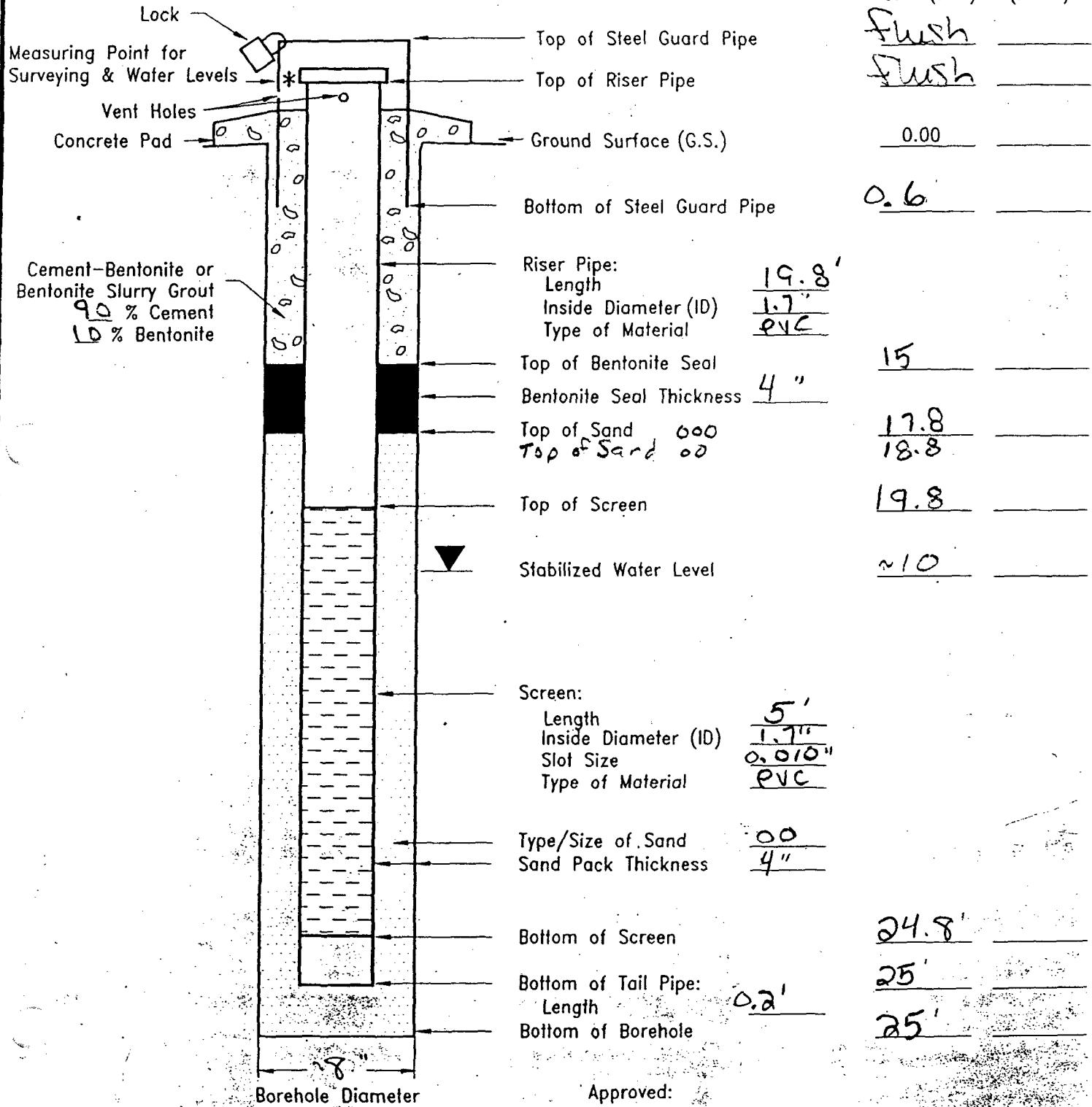
Signature

12/8/93  
Date

ENSR

Project No: 05.01 Client: Unifirst Site: Wells G+H, Woburn WELL No: 294D  
 Well Location: Unifirst Site Property - in front of storage depot entrance Date Installed: 12/7/93  
 Contractor: D.L. Maher Method: 4 1/4" HSA Inspector: J. Howe

## MONITORING WELL CONSTRUCTION DETAIL



\* Describe Measuring Point:

Mark on PVC Riser

Approved:

*J. Howe*  
Signature

12/7/93

Date

**ENSR**

Project No: 05.01 Client: Unifirst/WCS Site: Wells G+H, Woburn, MA WELL No: UC30

Well Location: Unifirst Site Property

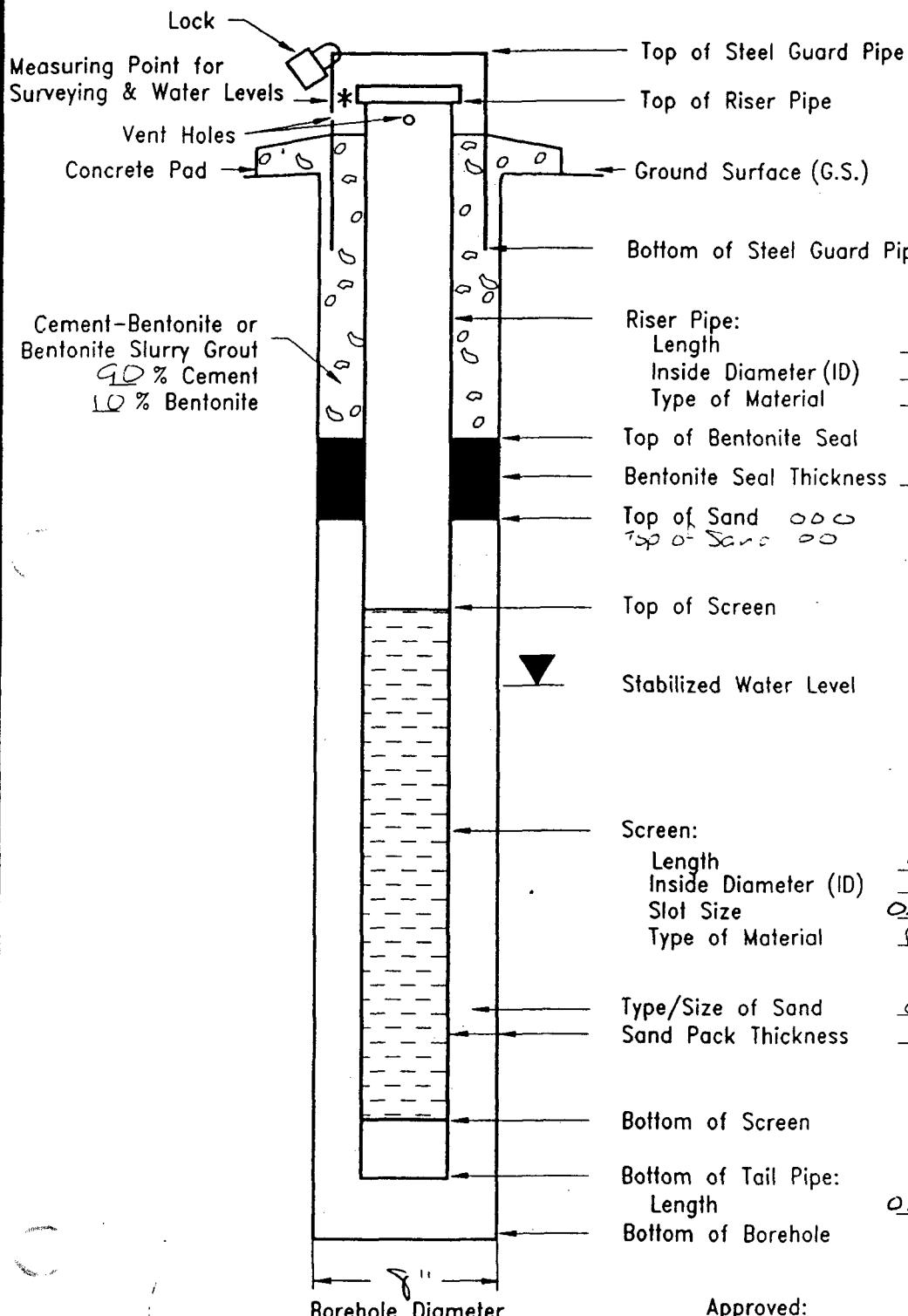
Date Installed: 12/9/93

Contractor: D.L. Maher

Method: 4 1/4" HSA

Inspector: J. Howe

## MONITORING WELL CONSTRUCTION DETAIL



Depth from G.S. (feet)

Elevation (NGVD)

Flush

Flush

0.00

0.6

Riser Pipe:

Length  
Inside Diameter (ID)  
Type of Material

9'  
1.7"  
PVC

5

Top of Bentonite Seal  
Bentonite Seal Thickness

4"

7

Top of Sand 000  
Top of Sand 00

8

Top of Screen

9

Stabilized Water Level

~14

Screen:

Length  
Inside Diameter (ID)  
Slot Size  
Type of Material

5.8'  
1.7"  
0.010"  
PVC

Type/Size of Sand  
Sand Pack Thickness

00  
4"

Bottom of Screen

14.8

Bottom of Tail Pipe:

Length  
0.2'

15

Bottom of Borehole

15

Approved:

J. Howe  
Signature

12/9/93  
Date

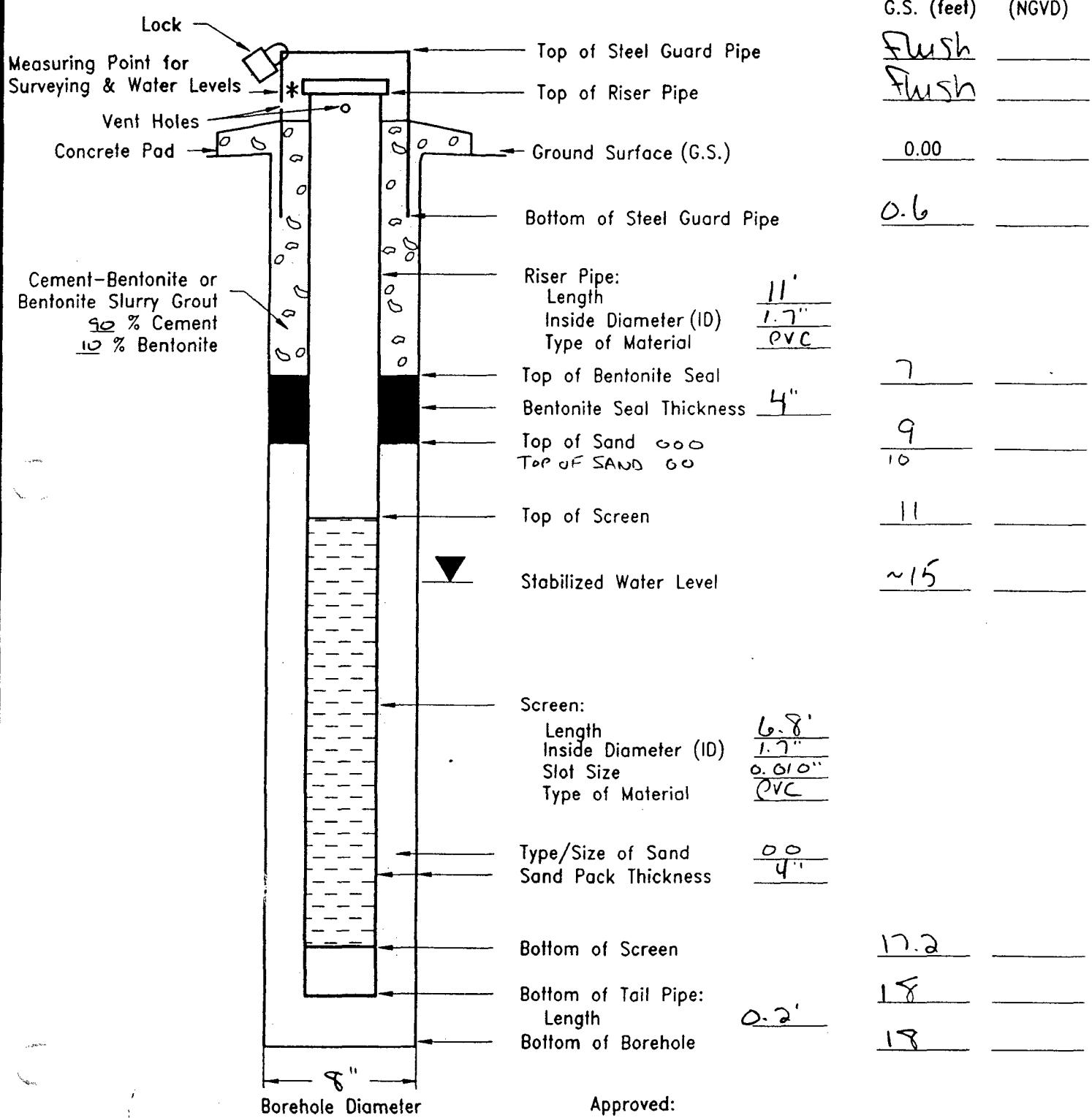
\* Describe Measuring Point:

Mark on PVC Riser

**ENSR.**

Project No: 05.01 Client: Unifirst Site: Wells G + H WELL No: UC315  
 Well Location: Unifirst Site Property Date Installed: 12/14/93  
 Contractor: D.L. Maher Method: 4 1/4" HSA Inspector: J. Howe

### MONITORING WELL CONSTRUCTION DETAIL



Approved:

\* Describe Measuring Point:

Not on a PVC riser

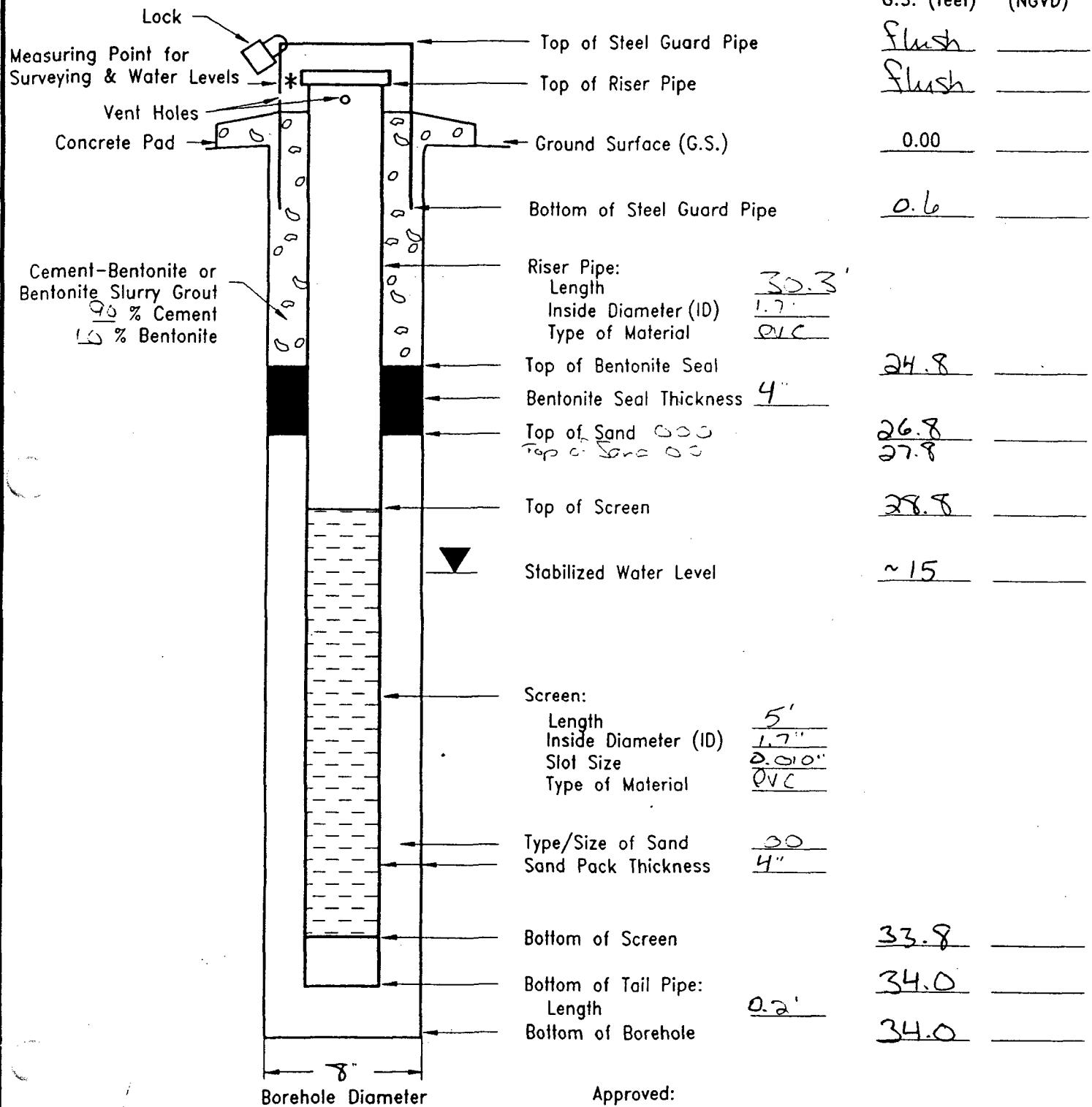
*J. Howe*  
Signature

12/14/93  
Date

**ENSR.**

Project No: 05-01 Client: Dr. First/UC Site: Wells G-11, Watson  
 WELL No: UC31M  
 Well Location: Univ. First Property  
 Contractor: D.L. Mayer Method: 110 - SA Date Installed: 12/10/93  
 Inspector: J. Howe

## MONITORING WELL CONSTRUCTION DETAIL



\* Describe Measuring Point:

Mark on PVC Riser

Approved:

*J. Howe*  
Signature  
12/10/93  
Date

**ENSR.**

Project No: 05-01

Client: Unifirst

Site: Wells G+H, Woburn, MA

WELL No: UC31D

Well Location: Unifirst Site Property

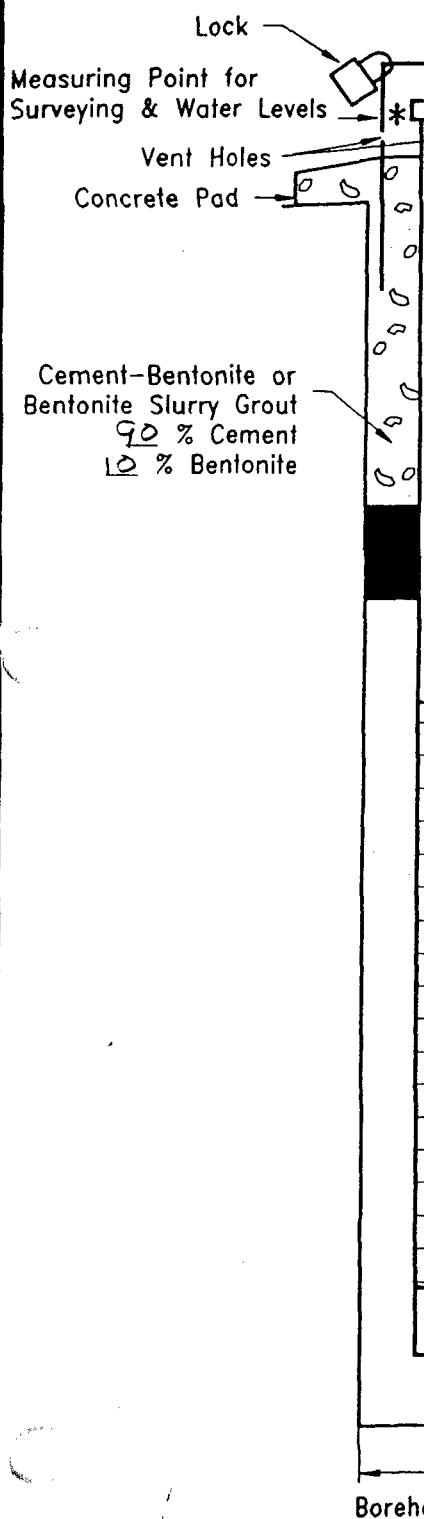
Contractor: D.L. Maher

Method: 4 1/4" HSA

Date Installed: 12/13/93

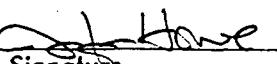
Inspector: J. Howe

## MONITORING WELL CONSTRUCTION DETAIL



Depth from G.S. (feet)	Elevation (NGVD)
Flush	
Flush	
0.00	
0.6	
Riser Pipe: Length Inside Diameter (ID) Type of Material	46.8' 1.7" PVC
Top of Bentonite Seal	42.7
Bentonite Seal Thickness	4"
Top of Sand TOP OF SAND 30	44.8 45.5
Top of Screen	46.8
Stabilized Water Level	~15
Screen: Length Inside Diameter (ID) Slot Size Type of Material	5' 1.7" 0.010" PVC
Type/Size of Sand Sand Pack Thickness	00 4"
Bottom of Screen	51.8
Bottom of Tail Pipe: Length Bottom of Borehole	52 0.2'
Borehole Diameter	7"

Approved:

  
Signature

12/13/93  
Date

\* Describe Measuring Point:

Mark in PVC Riser

**ENSR.**

## **APPENDIX B**

### **Analytical Results for Unconsolidated-Deposits Samples from Test Pits and Borings**

See Table 1 in main text for sample locations  
corresponding to sample I.D. numbers provided on  
results sheets.

## **APPENDIX B-1      Volatile-Organic Compounds**

Note: hand-written edits or notations where they exist on analysis sheets were added by the data validator and reflect the validator's decisions based on evaluation of dilution results, re-analyses, method blanks and equipment blanks.

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TPH-1A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: \_\_\_\_\_ SDG No.: 38034

Matrix: (soil/water) SOIL Lab Sample ID: 190349

Sample wt/vol: 202.1 (g/mL) G Lab File ID: C190349E2V

Level: (low/med) MED Date Received: 07/26/93

% Moisture: not dec. 0 Date Analyzed: 07/31/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
---------	----------	-----------------	-------	---

74-87-3-----	Chloromethane	620	U	
74-83-9-----	Bromomethane	620	U	
75-01-4-----	Vinyl Chloride	620	U	
75-00-3-----	Chloroethane	620	U	
75-09-2-----	Methylene Chloride	310	U	
67-64-1-----	Acetone	350	J	620U
75-15-0-----	Carbon Disulfide	310	U	
75-35-4-----	1,1-Dichloroethene	310	U	
75-34-3-----	1,1-Dichloroethane	310	U	
540-59-0-----	1,2-Dichloroethene (total)	310	U	
67-66-3-----	Chloroform	310	U	
107-06-2-----	1,2-Dichloroethane	310	U	
78-93-3-----	2-Butanone	620	U	
71-55-6-----	1,1,1-Trichloroethane	310	U	
56-23-5-----	Carbon Tetrachloride	310	U	
108-05-4-----	Vinyl Acetate	620	U	
75-27-4-----	Bromodichloromethane	310	U	
78-87-5-----	1,2-Dichloropropane	310	U	
10061-01-5-----	cis-1,3-Dichloropropene	310	U	
79-01-6-----	Trichloroethene	310	U	
124-48-1-----	Dibromochloromethane	310	U	
79-00-5-----	1,1,2-Trichloroethane	310	U	
71-43-2-----	Benzene	310	U	
10061-02-6-----	trans-1,3-Dichloropropene	310	U	
75-25-2-----	Bromoform	310	U	
108-10-1-----	4-Methyl-2-Pentanone	620	U	
591-78-6-----	2-Hexanone	620	U	
127-18-4-----	Tetrachloroethene	270	J	
79-34-5-----	1,1,2,2-Tetrachloroethane	310	U	
108-88-3-----	Toluene	310	U	
108-90-7-----	Chlorobenzene	310	U	
100-41-4-----	Ethylbenzene	310	U	
100-42-5-----	Styrene	310	U	
1330-20-7-----	Xylene (total)	111885	VAL	310 U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TPH-1A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: \_\_\_\_\_ SDG No.: 38034

Matrix: (soil/water) SOIL Lab Sample ID: 190349

Sample wt/vol: 202.1 (g/mL) G Lab File ID: C190349E2V

Level: (low/med) MED Date Received: 07/26/93

% Moisture: not dec. 0 Date Analyzed: 07/31/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
3.				

111886 VAL

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TPH-2A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: \_\_\_\_\_ SDG No.: 38034

Matrix: (soil/water) SOIL Lab Sample ID: 190350

Sample wt/vol: 369.7 (g/mL) G Lab File ID: C190350E2V

Level: (low/med) MED Date Received: 07/26/93

% Moisture: not dec. 0 Date Analyzed: 07/31/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND		
74-87-3-----	Chloromethane	340	U
74-83-9-----	Bromomethane	340	U
75-01-4-----	Vinyl Chloride	340	U
75-00-3-----	Chloroethane	340	U
75-09-2-----	Methylene Chloride	170	U
67-64-1-----	Acetone	340	U
75-15-0-----	Carbon Disulfide	170	U
75-35-4-----	1,1-Dichloroethene	170	U
75-34-3-----	1,1-Dichloroethane	170	U
540-59-0-----	1,2-Dichloroethene (total)	170	U
67-66-3-----	Chloroform	170	U
107-06-2-----	1,2-Dichloroethane	170	U
78-93-3-----	2-Butanone	340	U
71-55-6-----	1,1,1-Trichloroethane	170	U
56-23-5-----	Carbon Tetrachloride	170	U
108-05-4-----	Vinyl Acetate	340	U
75-27-4-----	Bromodichloromethane	170	U
78-87-5-----	1,2-Dichloropropane	170	U
10061-01-5-----	cis-1,3-Dichloropropene	170	U
79-01-6-----	Trichloroethylene	170	U
124-48-1-----	Dibromochloromethane	170	U
79-00-5-----	1,1,2-Trichloroethane	170	U
71-43-2-----	Benzene	170	U
10061-02-6-----	trans-1,3-Dichloropropene	170	U
75-25-2-----	Bromoform	170	U
108-10-1-----	4-Methyl-2-Pentanone	340	U
591-78-6-----	2-Hexanone	340	U
127-18-4-----	Tetrachloroethylene	360	U
79-34-5-----	1,1,2,2-Tetrachloroethane	170	U
108-88-3-----	Toluene	170	U
108-90-7-----	Chlorobenzene	170	U
100-41-4-----	Ethylbenzene	170	U
100-42-5-----	Styrene	170	U
1330-20-7-----	Xylene (total)	111887	VAL

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TPH-2A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: \_\_\_\_\_ SDG No.: 38034

Matrix: (soil/water) SOIL

Lab Sample ID: 190350

Sample wt/vol: 369.7 (g/mL) G

Lab File ID: C190350E2V

Level: (low/med) MED

Date Received: 07/26/93

% Moisture: not dec. 0

Date Analyzed: 07/31/93

Column: (pack/cap) PACK

Dilution Factor: 1.0

CONCENTRATION UNITS:

Number TICs found: 0

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
?				

111888 VAL

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC, INC.

Contract: 92126

TPH-9A

Lab Code: AQUAI Case No.: 92126 SAS No.: \_\_\_\_\_ SDG No.: 38034

Matrix: (soil/water) SOIL Lab Sample ID: 190351

Sample wt/vol: 362.5 (g/mL) G Lab File ID: C190351EV

Level: (low/med) MED Date Received: 07/26/93

% Moisture: not dec. 0 Date Analyzed: 07/31/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3-----	Chloromethane	340	U
74-83-9-----	Bromomethane	340	U
75-01-4-----	Vinyl Chloride	340	U
75-00-3-----	Chloroethane	340	U
75-09-2-----	Methylene Chloride	170	U
67-64-1-----	Acetone	340	U
75-15-0-----	Carbon Disulfide	170	U
75-35-4-----	1,1-Dichloroethene	170	U
75-34-3-----	1,1-Dichloroethane	170	U
540-59-0-----	1,2-Dichloroethene (total)	62	J
67-66-3-----	Chloroform	170	U
107-06-2-----	1,2-Dichloroethane	170	U
78-93-3-----	2-Butanone	340	U
71-55-6-----	1,1,1-Trichloroethane	170	U
56-23-5-----	Carbon Tetrachloride	170	U
108-05-4-----	Vinyl Acetate	340	U
75-27-4-----	Bromodichloromethane	170	U
78-87-5-----	1,2-Dichloropropane	170	U
10061-01-5-----	cis-1,3-Dichloropropene	170	U
79-01-6-----	Trichloroethene	37	J
124-48-1-----	Dibromochloromethane	170	U
79-00-5-----	1,1,2-Trichloroethane	170	U
71-43-2-----	Benzene	170	U
10061-02-6-----	trans-1,3-Dichloropropene	170	U
75-25-2-----	Bromoform	170	U
108-10-1-----	4-Methyl-2-Pentanone	340	U
591-78-6-----	2-Hexanone	340	U
127-18-4-----	Tetrachloroethene	3400	_____
79-34-5-----	1,1,2,2-Tetrachloroethane	170	U
108-88-3-----	Toluene	170	U
108-90-7-----	Chlorobenzene	170	U
100-41-4-----	Ethylbenzene	170	U
100-42-5-----	Styrene	170	U
1330-20-7-----	Xylene (total)	170	U

111889 VAL

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TPH-9A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: \_\_\_\_\_ SDG No.: 38034

Matrix: (soil/water) SOIL Lab Sample ID: 190351

Sample wt/vol: 362.5 (g/mL) G Lab File ID: C190351EV

Level: (low/med) MED Date Received: 07/26/93

% Moisture: not dec. 0 Date Analyzed: 07/31/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
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111890 VAL

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC, INC.

Contract: 92126

TPH-11A

Lab Code: AQUAI Case No.: 92126 SAS No.: \_\_\_\_\_ SDG No.: 38034

Matrix: (soil/water) SOIL Lab Sample ID: 190352

Sample wt/vol: 369.0 (g/mL) G Lab File ID: C190352EV

Level: (low/med) MED Date Received: 07/26/93

% Moisture: not dec. 0 Date Analyzed: 08/02/93

Column: (pack/cap) PACK Dilution Factor: 1.00

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

74-87-3-----Chloromethane		340	U
74-83-9-----Bromomethane		340	U
75-01-4-----Vinyl Chloride		340	U
75-00-3-----Chloroethane		340	U
75-09-2-----Methylene Chloride		44	BJ
67-64-1-----Acetone		340	U
75-15-0-----Carbon Disulfide		170	U
75-35-4-----1,1-Dichloroethene		170	U
75-34-3-----1,1-Dichloroethane		170	U
540-59-0-----1,2-Dichloroethene (total)		64	J
67-66-3-----Chloroform		170	U
107-06-2-----1,2-Dichloroethane		170	U
78-93-3-----2-Butanone		340	U
71-55-6-----1,1,1-Trichloroethane		170	U
56-23-5-----Carbon Tetrachloride		170	U
108-05-4-----Vinyl Acetate		340	U
75-27-4-----Bromodichloromethane		170	U
78-87-5-----1,2-Dichloropropane		170	U
10061-01-5-----cis-1,3-Dichloropropene		170	U
79-01-6-----Trichloroethene		170	U
124-48-1-----Dibromochloromethane		170	U
79-00-5-----1,1,2-Trichloroethane		170	U
71-43-2-----Benzene		170	U
10061-02-6-----trans-1,3-Dichloropropene		170	U
75-25-2-----Bromoform		170	U
108-10-1-----4-Methyl-2-Pentanone		340	U
591-78-6-----2-Hexanone		340	U
127-18-4-----Tetrachloroethene		2800	_____
79-34-5-----1,1,2,2-Tetrachloroethane		170	U
108-88-3-----Toluene		170	U
108-90-7-----Chlorobenzene		170	U
100-41-4-----Ethylbenzene		170	U
100-42-5-----Styrene		170	U
1330-20-7-----Xylene (total)	111883 VAL	170	U

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TPH-11A

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: \_\_\_\_\_ SDG No.: 38034

Matrix: (soil/water) SOIL Lab Sample ID: 190352

Sample wt/vol: 369.0 (g/mL) G Lab File ID: C190352EV

Level: (low/med) MED Date Received: 07/26/93

% Moisture: not dec. 0 Date Analyzed: 08/02/93

Column: (pack/cap) PACK Dilution Factor: 1.00

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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111884 VAL

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TPI-1A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: \_\_\_\_\_ SDG No.: 38034

Matrix: (soil/water) SOIL

Lab Sample ID: 190353

Sample wt/vol: 362.2 (g/mL) G

Lab File ID: C190353EV

Level: (low/med) MED

Date Received: 07/26/93

% Moisture: not dec. 0

Date Analyzed: 08/02/93

Column: (pack/cap) PACK

Dilution Factor: 1.0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND		
74-87-3-----	Chloromethane	350	U
74-83-9-----	Bromomethane	350	U
75-01-4-----	Vinyl Chloride	350	U
75-00-3-----	Chloroethane	350	U
75-09-2-----	Methylene Chloride	170	U
67-64-1-----	Acetone	350	U
75-15-0-----	Carbon Disulfide	170	U
75-35-4-----	1,1-Dichloroethene	820	_____
75-34-3-----	1,1-Dichloroethane	170	U
540-59-0-----	1,2-Dichloroethene (total)	170	U
67-66-3-----	Chloroform	170	U
107-06-2-----	1,2-Dichloroethane	170	U
78-93-3-----	2-Butanone	350	U
71-55-6-----	1,1,1-Trichloroethane	12000	E
56-23-5-----	Carbon Tetrachloride	170	U
108-05-4-----	Vinyl Acetate	350	U
75-27-4-----	Bromodichloromethane	170	U
78-87-5-----	1,2-Dichloropropane	170	U
10061-01-5-----	cis-1,3-Dichloropropene	170	U
79-01-6-----	Trichloroethene	86	J
124-48-1-----	Dibromochloromethane	170	U
79-00-5-----	1,1,2-Trichloroethane	170	U
71-43-2-----	Benzene	170	U
10061-02-6-----	trans-1,3-Dichloropropene	170	U
75-25-2-----	Bromoform	170	U
108-10-1-----	4-Methyl-2-Pentanone	350	U
591-78-6-----	2-Hexanone	350	U
127-18-4-----	Tetrachloroethene	61000	ES
79-34-5-----	1,1,2,2-Tetrachloroethane	170	U
108-88-3-----	Toluene	170	U
108-90-7-----	Chlorobenzene	170	U
100-41-4-----	Ethylbenzene	170	U
100-42-5-----	Styrene	170	U
1330-20-7-----	Xylene (total)	111891	VAL
		120000	

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: AQUATEC, INC.

Contract: 92126

TPI-1A

Lab Code: AQUAI Case No.: 92126 SAS No.: \_\_\_\_\_ SDG No.: 38034

Matrix: (soil/water) SOIL Lab Sample ID: 190353

Sample wt/vol: 362.2 (g/mL) G Lab File ID: C190353EV

Level: (low/med) MED Date Received: 07/26/93

~~% Moisture:~~ not dec. 0 Date Analyzed: 08/02/93

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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111892 VAL

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC, INC.

Contract: 92126

TPJ1A

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205983

Sample wt/vol: 589.0 (g/mL) G Lab File ID: E205983EV

Level: (low/med) MED Date Received: 12/03/93

% Moisture: not dec. 0 Date Analyzed: 12/14/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
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74-87-3-----	Chloromethane	210	U
74-83-9-----	Bromomethane	210	U
75-01-4-----	Vinyl Chloride	210	U
75-00-3-----	Chloroethane	210	U
75-09-2-----	Methylene Chloride	32	BJ 110 U
67-64-1-----	Acetone	99	BJ <del>110</del> 210 U
75-15-0-----	Carbon Disulfide	110	U
75-35-4-----	1,1-Dichloroethene	110	U
75-34-3-----	1,1-Dichloroethane	110	U
540-59-0-----	1,2-Dichloroethene (total)	110	U
67-66-3-----	Chloroform	110	U
107-06-2-----	1,2-Dichloroethane	110	U
78-93-3-----	2-Butanone	210	U
71-55-6-----	1,1,1-Trichloroethane	110	U
56-23-5-----	Carbon Tetrachloride	110	U
108-05-4-----	Vinyl Acetate	210	U
75-27-4-----	Bromodichloromethane	110	U
78-87-5-----	1,2-Dichloropropane	110	U
10061-01-5-----	cis-1,3-Dichloropropene	110	U
79-01-6-----	Trichloroethene	110	U
124-48-1-----	Dibromochloromethane	110	U
79-00-5-----	1,1,2-Trichloroethane	110	U
71-43-2-----	Benzene	110	U
10061-02-6-----	trans-1,3-Dichloropropene	110	U
75-25-2-----	Bromoform	110	U
108-10-1-----	4-Methyl-2-Pentanone	210	U
591-78-6-----	2-Hexanone	210	U
127-18-4-----	Tetrachloroethene	42	J
79-34-5-----	1,1,2,2-Tetrachloroethane	110	U
108-88-3-----	Toluene	110	U
108-90-7-----	Chlorobenzene	110	U
100-41-4-----	Ethylbenzene	110	U
100-42-5-----	Styrene	110	U
1330-20-7-----	Xylene (total)	110	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TPJ1A

Lab Name: AQUATEC, INC.

Contract:92126

Lab Code: AQUAI Case No.: 92125 SAS No.: SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205983

Sample wt/vol: 589.0 (g/mL) G Lab File ID: E205983EV

Level: (low/med) MED Date Received: 12/03/93

% Moisture: not dec. 0 Date Analyzed: 12/14/93

Column: (pack/cap) PACK Dilution Factor: 1.0

### **CONCENTRATION UNITS:**

(ug/L or ug/Kg) UG/KG

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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123294 VAL

**FORM I VOA-TIC**

1/87 Rev.

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC, INC.

Contract: 92126

PK10A

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105  
 Matrix: (soil/water) SOIL Lab Sample ID: 205973  
 Sample wt/vol: 547.3 (g/mL) G Lab File ID: E205973EV  
 Level: (low/med) MED Date Received: 12/03/93  
 % Moisture: not dec. 0 Date Analyzed: 12/13/93  
 Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3-----	Chloromethane	230	U
74-83-9-----	Bromomethane	230	U
75-01-4-----	Vinyl Chloride	230	U
75-00-3-----	Chloroethane	230	U
75-09-2-----	Methylene Chloride	26	BJ 110 U
67-64-1-----	Acetone	63	BJ 230 U
75-15-0-----	Carbon Disulfide	110	U
75-35-4-----	1,1-Dichloroethene	110	U
75-34-3-----	1,1-Dichloroethane	110	U
540-59-0-----	1,2-Dichloroethene (total)	110	U
67-66-3-----	Chloroform	110	U
107-06-2-----	1,2-Dichloroethane	110	U
78-93-3-----	2-Butanone	230	U
71-55-6-----	1,1,1-Trichloroethane	110	U
56-23-5-----	Carbon Tetrachloride	110	U
108-05-4-----	Vinyl Acetate	230	U
75-27-4-----	Bromodichloromethane	110	U
78-87-5-----	1,2-Dichloropropane	110	U
10061-01-5-----	cis-1,3-Dichloropropene	110	U
79-01-6-----	Trichloroéthene	110	U
124-48-1-----	Dibromochloromethane	110	U
79-00-5-----	1,1,2-Trichloroethane	110	U
71-43-2-----	Benzene	110	U
10061-02-6-----	trans-1,3-Dichloropropene	110	U
75-25-2-----	Bromoform	110	U
108-10-1-----	4-Methyl-2-Pentanone	230	U
591-78-6-----	2-Hexanone	230	U
127-18-4-----	Tetrachloroethene	36	J
79-34-5-----	1,1,2,2-Tetrachloroethane	110	U
108-88-3-----	Toluene	110	U
108-90-7-----	Chlorobenzene	110	U
100-41-4-----	Ethylbenzene	110	U
100-42-5-----	Styrene	110	U
1330-20-7-----	Xylene (total)	110	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PK10A

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205973

Sample wt/vol: 547.3 (g/mL) G Lab File ID: E205973EV

Level: (low/med) MED Date Received: 12/03/93

% Moisture: not dec. 0 Date Analyzed: 12/13/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PK10B

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205975

Sample wt/vol: 610.5 (g/mL) G Lab File ID: E205975EV

Level: (low/med) MED Date Received: 12/03/93

% Moisture: not dec. 0 Date Analyzed: 12/13/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND			
74-87-3-----	Chloromethane	200	U	
74-83-9-----	Bromomethane	200	U	
75-01-4-----	Vinyl Chloride	200	U	
75-00-3-----	Chloroethane	200	U	
75-09-2-----	Methylene Chloride	51	BU	100 U
67-64-1-----	Acetone	96	BU	200 U
75-15-0-----	Carbon Disulfide	100	U	
75-35-4-----	1,1-Dichloroethene	100	U	
75-34-3-----	1,1-Dichloroethane	100	U	
540-59-0-----	1,2-Dichloroethene (total)	100	U	
67-66-3-----	Chloroform	100	U	
107-06-2-----	1,2-Dichloroethane	100	U	
78-93-3-----	2-Butanone	200	U	
71-55-6-----	1,1,1-Trichloroethane	100	U	
56-23-5-----	Carbon Tetrachloride	100	U	
108-05-4-----	Vinyl Acetate	200	U	
75-27-4-----	Bromodichloromethane	100	U	
78-87-5-----	1,2-Dichloropropane	100	U	
10061-01-5-----	cis-1,3-Dichloropropene	100	U	
79-01-6-----	Trichloroéthene	100	U	
124-48-1-----	Dibromochloromethane	100	U	
79-00-5-----	1,1,2-Trichloroethane	100	U	
71-43-2-----	Benzene	100	U	
10061-02-6-----	trans-1,3-Dichloropropene	100	U	
75-25-2-----	Bromoform	100	U	
108-10-1-----	4-Methyl-2-Pentanone	200	U	
591-78-6-----	2-Hexanone	200	U	
127-18-4-----	Tetrachloroethene	37	J	
79-34-5-----	1,1,2,2-Tetrachloroethane	100	U	
108-88-3-----	Toluene	100	U	
108-90-7-----	Chlorobenzene	100	U	
100-41-4-----	Ethylbenzene	100	U	
100-42-5-----	Styrene	100	U	
1330-20-7-----	Xylene (total)	100	U	

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PK10B

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205975

Sample wt/vol: 610.5 (g/mL) G Lab File ID: E205975EV

Level: (low/med) MED Date Received: 12/03/93

% Moisture: not dec. 0 Date Analyzed: 12/13/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC, INC.

Contract: 92126

PK11A

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205977

Sample wt/vol: 674.5 (g/mL) G Lab File ID: E205977EV

Level: (low/med) MED Date Received: 12/03/93

% Moisture: not dec. 0 Date Analyzed: 12/13/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
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74-87-3-----	Chloromethane	190	U
74-83-9-----	Bromomethane	190	U
75-01-4-----	Vinyl Chloride	190	U
75-00-3-----	Chloroethane	190	U
75-09-2-----	Methylene Chloride	20	BJ 93 U
67-64-1-----	Acetone	38	BJ 190 U
75-15-0-----	Carbon Disulfide	93	U
75-35-4-----	1,1-Dichloroethene	93	U
75-34-3-----	1,1-Dichloroethane	93	U
540-59-0-----	1,2-Dichloroethene (total)	93	U
67-66-3-----	Chloroform	93	U
107-06-2-----	1,2-Dichloroethane	93	U
78-93-3-----	2-Butanone	190	U
71-55-6-----	1,1,1-Trichloroethane	93	U
56-23-5-----	Carbon Tetrachloride	93	U
108-05-4-----	Vinyl Acetate	190	U
75-27-4-----	Bromodichloromethane	93	U
78-87-5-----	1,2-Dichloroproppane	93	U
10061-01-5-----	cis-1,3-Dichloropropene	93	U
79-01-6-----	Trichloroéthene	93	U
124-48-1-----	Dibromochloromethane	93	U
79-00-5-----	1,1,2-Trichloroethane	93	U
71-43-2-----	Benzene	93	U
10061-02-6-----	trans-1,3-Dichloropropene	93	U
75-25-2-----	Bromoform	93	U
108-10-1-----	4-Methyl-2-Pentanone	190	U
591-78-6-----	2-Hexanone	190	U
127-18-4-----	Tetrachloroethene	93	U
79-34-5-----	1,1,2,2-Tetrachloroethane	93	U
108-88-3-----	Toluene	93	U
108-90-7-----	Chlorobenzene	93	U
100-41-4-----	Ethylbenzene	93	U
100-42-5-----	Styrene	93	U
1330-20-7-----	Xylene (total)	93	U

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PK11A

Lab Name:AQUATEC, INC.	Contract:92126		
Lab Code: AQUAI	Case No.: 92125	SAS No.: _____	SDG No.: 41105
Matrix: (soil/water)SOIL	Lab Sample ID: 205977		
Sample wt/vol: 674.5 (g/mL)G	Lab File ID: E205977EV		
Level: (low/med) MED	Date Received: 12/03/93		
% Moisture: not dec. 0	Date Analyzed: 12/13/93		
Column: (pack/cap) PACK	Dilution Factor: 1.0		

CONCENTRATION UNITS:  
 Number TICs found: 0 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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123284 VAL

FORM I VOA-TIC

1/87 Rev.

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PK12A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205978

Sample wt/vol: 648.3 (g/mL) G Lab File ID: E205978EV

Level: (low/med) MED Date Received: 12/03/93

% Moisture: not dec. 0 Date Analyzed: 12/13/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

74-87-3-----	Chloromethane	190	U
74-83-9-----	Bromomethane	190	U
75-01-4-----	Vinyl Chloride	190	U
75-00-3-----	Chloroethane	190	U
75-09-2-----	Methylene Chloride	24	BJ 96 U
67-64-1-----	Acetone	35	BJ 190 U
75-15-0-----	Carbon Disulfide	96	U
75-35-4-----	1,1-Dichloroethene	96	U
75-34-3-----	1,1-Dichloroethane	96	U
540-59-0-----	1,2-Dichloroethene (total)	96	U
67-66-3-----	Chloroform	96	U
107-06-2-----	1,2-Dichloroethane	96	U
78-93-3-----	2-Butanone	190	U
71-55-6-----	1,1,1-Trichloroethane	96	U
56-23-5-----	Carbon Tetrachloride	96	U
108-05-4-----	Vinyl Acetate	190	U
75-27-4-----	Bromodichloromethane	96	U
78-87-5-----	1,2-Dichloropropane	96	U
10061-01-5-----	cis-1,3-Dichloropropene	96	U
79-01-6-----	Trichloroethene	96	U
124-48-1-----	Dibromochloromethane	96	U
79-00-5-----	1,1,2-Trichloroethane	96	U
71-43-2-----	Benzene	96	U
10061-02-6-----	trans-1,3-Dichloropropene	96	U
75-25-2-----	Bromoform	96	U
108-10-1-----	4-Methyl-2-Pentanone	190	U
591-78-6-----	2-Hexanone	190	U
127-18-4-----	Tetrachloroethene	140	_____
79-34-5-----	1,1,2,2-Tetrachloroethane	96	U
108-88-3-----	Toluene	96	U
108-90-7-----	Chlorobenzene	96	U
100-41-4-----	Ethylbenzene	96	U
100-42-5-----	Styrene	96	U
1330-20-7-----	Xylene (total)	96	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PK12A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205978

Sample wt/vol: 648.3 (g/mL) G Lab File ID: E205978EV

Level: (low/med) MED Date Received: 12/03/93

Moisture: not dec. 0 Date Analyzed: 12/13/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1/87 Rev.

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC, INC.

Contract: 92126

TPL1A

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205979

Sample wt/vol: 687.7 (g/mL) G Lab File ID: E205979EV

Level: (low/med) MED Date Received: 12/03/93

% Moisture: not dec. 0 Date Analyzed: 12/14/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

74-87-3-----Chloromethane	180	U
74-83-9-----Bromomethane	180	U
75-01-4-----Vinyl Chloride	180	U
75-00-3-----Chloroethane	180	U
75-09-2-----Methylene Chloride	22	B <sup>J</sup> 91U
67-64-1-----Acetone	23	B <sup>J</sup> 180U
75-15-0-----Carbon Disulfide	91	U
75-35-4-----1,1-Dichloroethene	91	U
75-34-3-----1,1-Dichloroethane	91	U
540-59-0-----1,2-Dichloroethene (total)	91	U
67-66-3-----Chloroform	91	U
107-06-2-----1,2-Dichloroethane	91	U
78-93-3-----2-Butanone	180	U
71-55-6-----1,1,1-Trichloroethane	91	U
56-23-5-----Carbon Tetrachloride	91	U
108-05-4-----Vinyl Acetate	180	U
75-27-4-----Bromodichloromethane	91	U
78-87-5-----1,2-Dichloropropane	91	U
10061-01-5-----cis-1,3-Dichloropropene	91	U
79-01-6-----Trichloroéthene	91	U
124-48-1-----Dibromochloromethane	91	U
79-00-5-----1,1,2-Trichloroethane	91	U
71-43-2-----Benzene	91	U
10061-02-6-----trans-1,3-Dichloropropene	91	U
75-25-2-----Bromoform	91	U
108-10-1-----4-Methyl-2-Pentanone	180	U
591-78-6-----2-Hexanone	180	U
127-18-4-----Tetrachloroethene	50	J
79-34-5-----1,1,2,2-Tetrachloroethane	91	U
108-88-3-----Toluene	91	U
108-90-7-----Chlorobenzene	91	U
100-41-4-----Ethylbenzene	91	U
100-42-5-----Styrene	91	U
1330-20-7-----Xylene (total)	91	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TP11A
TPL1A

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205979

Sample wt/vol: 687.7 (g/mL) G Lab File ID: E205979EV

Level: (low/med) MED Date Received: 12/03/93

% Moisture: not dec. 0 Date Analyzed: 12/14/93

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC, INC.

Contract: 92126

TPI4A  
TPL4A

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205981

Sample wt/vol: 478.2 (g/mL) G Lab File ID: E205981EV

Level: (low/med) MED Date Received: 12/03/93

% Moisture: not dec. 0 Date Analyzed: 12/14/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

74-87-3-----	Chloromethane	260	U
74-83-9-----	Bromomethane	260	U
75-01-4-----	Vinyl Chloride	260	U
75-00-3-----	Chloroethane	260	UJ
75-09-2-----	Methylene Chloride	32	BT 130 U
67-64-1-----	Acetone	69	BT 260 U
75-15-0-----	Carbon Disulfide	130	U
75-35-4-----	1,1-Dichloroethene	130	U
75-34-3-----	1,1-Dichloroethane	130	U
540-59-0-----	1,2-Dichloroethene (total)	130	U
67-66-3-----	Chloroform	130	U
107-06-2-----	1,2-Dichloroethane	130	U
78-93-3-----	2-Butanone	260	U
71-55-6-----	1,1,1-Trichloroethane	130	U
56-23-5-----	Carbon Tetrachloride	130	U
108-05-4-----	Vinyl Acetate	260	U
75-27-4-----	Bromodichloromethane	130	U
78-87-5-----	1,2-Dichloropropane	130	U
10061-01-5-----	cis-1,3-Dichloropropene	130	U
79-01-6-----	Trichloroethene	130	U
124-48-1-----	Dibromochloromethane	130	U
79-00-5-----	1,1,2-Trichloroethane	130	U
71-43-2-----	Benzene	130	U
10061-02-6-----	trans-1,3-Dichloropropene	130	U
75-25-2-----	Bromoform	130	U
108-10-1-----	4-Methyl-2-Pentanone	260	U
591-78-6-----	2-Hexanone	260	U
127-18-4-----	Tetrachloroethene	170	U
79-34-5-----	1,1,2,2-Tetrachloroethane	130	U
108-88-3-----	Toluene	130	U
108-90-7-----	Chlorobenzene	130	U
100-41-4-----	Ethylbenzene	130	U
100-42-5-----	Styrene	130	U
1330-20-7-----	Xylene (total)	130	U

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: AQUATEC, INC.

Contract: 92126

TPL4A
TPL4A

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205981

Sample wt/vol: 478.2 (g/mL) G Lab File ID: E205981EV

Level: (low/med) MED Date Received: 12/03/93

% Moisture: not dec. 0 Date Analyzed: 12/14/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

Number TICs found: 0

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC, INC.

Contract: 92126

TP15A  
TP25A

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205982

Sample wt/vol: 568.9 (g/mL) G Lab File ID: E205982EV

Level: (low/med) MED Date Received: 12/03/93

% Moisture: not dec. 0 Date Analyzed: 12/14/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO. COMPOUND Q

74-87-3-----	Chloromethane	220	U
74-83-9-----	Bromomethane	220	U
75-01-4-----	Vinyl Chloride	220	U
75-00-3-----	Chloroethane	220	UJ
75-09-2-----	Methylene Chloride	36	BJ110 U
67-64-1-----	Acetone	210	BJ220U
75-15-0-----	Carbon Disulfide	110	U
75-35-4-----	1,1-Dichloroethene	110	U
75-34-3-----	1,1-Dichloroethane	110	U
540-59-0-----	1,2-Dichloroethene (total)	110	U
67-66-3-----	Chloroform	110	U
107-06-2-----	1,2-Dichloroethane	110	U
78-93-3-----	2-Butanone	220	U
71-55-6-----	1,1,1-Trichloroethane	110	U
56-23-5-----	Carbon Tetrachloride	110	U
108-05-4-----	Vinyl Acetate	220	U
75-27-4-----	Bromodichloromethane	110	U
78-87-5-----	1,2-Dichloropropane	110	U
10061-01-5-----	cis-1,3-Dichloropropene	110	U
79-01-6-----	Trichloroethene	110	U
124-48-1-----	Dibromochloromethane	110	U
79-00-5-----	1,1,2-Trichloroethane	110	U
71-43-2-----	Benzene	110	U
10061-02-6-----	trans-1,3-Dichloropropene	110	U
75-25-2-----	Bromoform	110	U
108-10-1-----	4-Methyl-2-Pentanone	220	U
591-78-6-----	2-Hexanone	220	U
127-18-4-----	Tetrachloroethene	110	U
79-34-5-----	1,1,2,2-Tetrachloroethane	110	U
108-88-3-----	Toluene	110	U
108-90-7-----	Chlorobenzene	110	U
100-41-4-----	Ethylbenzene	110	U
100-42-5-----	Styrene	110	U
133-0-20-7-----	Xylene (total)	110	U

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: AQUATEC, INC. Contract: 92126

TPISA  
TPL5A

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205982

Sample wt/vol: 568.9 (g/mL) G Lab File ID: E205982EV

Level: (low/med) MED Date Received: 12/03/93

% Moisture: not dec. 0 Date Analyzed: 12/14/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:  
 Number TICs found: 0 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C273A

Lab Name: AQUATEC, INC.	Contract: 92126		
Lab Code: AQUAI	Case No.: 92125	SAS No.: _____	SDG No.: 41105
Matrix: (soil/water) SOIL		Lab Sample ID: 205969	
Sample wt/vol:	415.8 (g/mL) G	Lab File ID: E205969E2V	
Level:	(low/med) MED	Date Received: 12/03/93	
Moisture: not dec. 0		Date Analyzed: 12/15/93	
Column:	(pack/cap) PACK	Dilution Factor:	4.0

Number TICs found: 0

CONCENTRATION UNITS:  
 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1/87 Rev.

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C276A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205971

Sample wt/vol: 433.8 (g/mL) G Lab File ID: E205971EV

Level: (low/med) MED Date Received: 12/03/93

% Moisture: not dec. 0 Date Analyzed: 12/13/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
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74-87-3-----	Chloromethane	290	U
74-83-9-----	Bromomethane	290	U
75-01-4-----	Vinyl Chloride	290	U
75-00-3-----	Chloroethane	290	U
75-09-2-----	Methylene Chloride	60	BJ 140U
67-64-1-----	Acetone	120	BJ 290U
75-15-0-----	Carbon Disulfide	140	U
75-35-4-----	1,1-Dichloroethene	140	U
75-34-3-----	1,1-Dichloroethane	140	U
540-59-0-----	1,2-Dichloroethene (total)	140	U
67-66-3-----	Chloroform	140	U
107-06-2-----	1,2-Dichloroethane	140	U
78-93-3-----	2-Butanone	290	U
71-55-6-----	1,1,1-Trichloroethane	140	U
56-23-5-----	Carbon Tetrachloride	140	U
108-05-4-----	Vinyl Acetate	290	U
75-27-4-----	Bromodichloromethane	140	U
78-87-5-----	1,2-Dichloropropane	140	U
10061-01-5-----	cis-1,3-Dichloropropene	140	U
79-01-6-----	Trichloroethene	140	U
124-48-1-----	Dibromochloromethane	140	U
79-00-5-----	1,1,2-Trichloroethane	140	U
71-43-2-----	Benzene	140	U
10061-02-6-----	trans-1,3-Dichloropropene	140	U
75-25-2-----	Bromoform	140	U
108-10-1-----	4-Methyl-2-Pentanone	290	U
591-78-6-----	2-Hexanone	290	U
127-18-4-----	Tetrachloroethene	620	_____
79-34-5-----	1,1,2,2-Tetrachloroethane	140	U
108-88-3-----	Toluene	140	U
108-90-7-----	Chlorobenzene	140	U
100-41-4-----	Ethylbenzene	140	U
100-42-5-----	Styrene	140	U
1330-20-7-----	Xylene (total)	140	U

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: AQUATEC, INC.

Contract: 92126

C276A

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL

Lab Sample ID: 205971

Sample wt/vol: 433.8 (g/mL) G

Lab File ID: E205971EV

Level: (low/med) MED

Date Received: 12/03/93

% Moisture: not dec. 0

Date Analyzed: 12/13/93

Column: (pack/cap) PACK

Dilution Factor: 1.0

CONCENTRATION UNITS:  
 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C281A

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 206229

Sample wt/vol: 453.1 (g/mL) G Lab File ID: E206229E2V

Level: (low/med) MED Date Received: 12/06/93

% Moisture: not dec. 0 Date Analyzed: 12/16/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
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74-87-3-----	Chloromethane	280	U
74-83-9-----	Bromomethane	280	U
75-01-4-----	Vinyl Chloride	280	U
75-00-3-----	Chloroethane	280	U
75-09-2-----	Methylene Chloride	41	BJ 140U
67-64-1-----	Acetone	43	BJ 280U
75-15-0-----	Carbon Disulfide	140	U
75-35-4-----	1,1-Dichloroethene	140	U
75-34-3-----	1,1-Dichloroethane	140	U
540-59-0-----	1,2-Dichloroethene (total)	140	U
67-66-3-----	Chloroform	140	U
107-06-2-----	1,2-Dichloroethane	140	U
78-93-3-----	2-Butanone	280	U
71-55-6-----	1,1,1-Trichloroethane	140	U
56-23-5-----	Carbon Tetrachloride	140	U
108-05-4-----	Vinyl Acetate	280	U
75-27-4-----	Bromodichloromethane	140	U
78-87-5-----	1,2-Dichloropropane	140	U
10061-01-5-----	cis-1,3-Dichloropropene	140	U
79-01-6-----	Trichloroéthene	140	U
124-48-1-----	Dibromochloromethane	140	U
79-00-5-----	1,1,2-Trichloroethane	140	U
71-43-2-----	Benzene	140	U
10061-02-6-----	trans-1,3-Dichloropropene	140	U
75-25-2-----	Bromoform	140	U
108-10-1-----	4-Methyl-2-Pentanone	280	U
591-78-6-----	2-Hexanone	280	U
127-18-4-----	Tetrachloroethene	110	J
79-34-5-----	1,1,2,2-Tetrachloroethane	140	U
108-88-3-----	Toluene	140	U
108-90-7-----	Chlorobenzene	140	U
100-41-4-----	Ethylbenzene	140	U
100-42-5-----	Styrene	140	U
1330-20-7-----	Xylene (total)	140	U

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C281A

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 206229

Sample wt/vol: 453.1 (g/mL) G Lab File ID: E206229E2V

Level: (low/med) MED Date Received: 12/06/93

% Moisture: not dec. 0 Date Analyzed: 12/16/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.67-63-0	2 - PROPANOL	7.25	740	JR
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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C284A

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 206230

Sample wt/vol: 393.7 (g/mL) G Lab File ID: E206230E2V

Level: (low/med) MED Date Received: 12/06/93

% Moisture: not dec. 0 Date Analyzed: 12/16/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3-----	Chloromethane	320	U
74-83-9-----	Bromomethane	320	U
75-01-4-----	Vinyl Chloride	320	U
75-00-3-----	Chloroethane	320	U
75-09-2-----	Methylene Chloride	40	BJ 160 U
67-64-1-----	Acetone	320	U
75-15-0-----	Carbon Disulfide	160	U
75-35-4-----	1,1-Dichloroethene	160	U
75-34-3-----	1,1-Dichloroethane	160	U
540-59-0-----	1,2-Dichloroethene (total)	160	U
67-66-3-----	Chloroform	160	U
107-06-2-----	1,2-Dichloroethane	160	U
78-93-3-----	2-Butanone	320	U
71-55-6-----	1,1,1-Trichloroethane	160	U
56-23-5-----	Carbon Tetrachloride	160	U
108-05-4-----	Vinyl Acetate	320	U
75-27-4-----	Bromodichloromethane	160	U
78-87-5-----	1,2-Dichloropropane	160	U
10061-01-5-----	cis-1,3-Dichloropropene	160	U
79-01-6-----	Trichloroéthene	160	U
124-48-1-----	Dibromochloromethane	160	U
79-00-5-----	1,1,2-Trichloroethane	160	U
71-43-2-----	Benzene	160	U
10061-02-6-----	trans-1,3-Dichloropropene	160	U
75-25-2-----	Bromoform	160	U
108-10-1-----	4-Methyl-2-Pentanone	320	U
591-78-6-----	2-Hexanone	320	U
127-18-4-----	Tetrachloroethene	160	U
79-34-5-----	1,1,2,2-Tetrachloroethane	160	U
108-88-3-----	Toluene	160	U
108-90-7-----	Chlorobenzene	160	U
100-41-4-----	Ethylbenzene	160	U
100-42-5-----	Styrene	160	U
1330-20-7-----	Xylene (total)	160	U

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C284A

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 206230

Sample wt/vol: 393.7 (g/mL) G Lab File ID: E206230E2V

Level: (low/med) MED Date Received: 12/06/93

% Moisture: not dec. 0 Date Analyzed: 12/16/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:  
 Number TICs found: 0 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

29D1A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 206279

Sample wt/vol: 329.1 (g/mL) G Lab File ID: E206279EV

Level: (low/med) MED Date Received: 12/07/93

% Moisture: not dec. 0 Date Analyzed: 12/16/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND			
74-87-3-----	Chloromethane	380	U	
74-83-9-----	Bromomethane	380	U	
75-01-4-----	Vinyl Chloride	380	U	
75-00-3-----	Chloroethane	380	U	
75-09-2-----	Methylene Chloride	58	BD 190 U	
67-64-1-----	Acetone	62	BD 380 U	
75-15-0-----	Carbon Disulfide	190	U	
75-35-4-----	1,1-Dichloroethene	190	U	
75-34-3-----	1,1-Dichloroethane	190	U	
540-59-0-----	1,2-Dichloroethene (total)	190	U	
67-66-3-----	Chloroform	190	U	
107-06-2-----	1,2-Dichloroethane	190	U	
78-93-3-----	2-Butanone	380	U	
71-55-6-----	1,1,1-Trichloroethane	190	U	
56-23-5-----	Carbon Tetrachloride	190	U	
108-05-4-----	Vinyl Acetate	380	U	
75-27-4-----	Bromodichloromethane	190	U	
78-87-5-----	1,2-Dichloropropane	190	U	
10061-01-5-----	cis-1,3-Dichloropropene	190	U	
79-01-6-----	Trichloroethene	190	U	
124-48-1-----	Dibromochloromethane	190	U	
79-00-5-----	1,1,2-Trichloroethane	190	U	
71-43-2-----	Benzene	190	U	
10061-02-6-----	trans-1,3-Dichloropropene	190	U	
75-25-2-----	Bromoform	190	U	
108-10-1-----	4-Methyl-2-Pentanone	380	U	
591-78-6-----	2-Hexanone	380	U	
127-18-4-----	Tetrachloroethene	190	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	190	U	
108-88-3-----	Toluene	190	U	
108-90-7-----	Chlorobenzene	190	U	
100-41-4-----	Ethylbenzene	190	U	
100-42-5-----	Styrene	190	U	
1330-20-7-----	Xylene (total)	190	U	

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

29D1A

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 206279

Sample wt/vol: 329.1 (g/mL) G Lab File ID: E206279EV

Level: (low/med) MED Date Received: 12/07/93

% Moisture: not dec. 0 Date Analyzed: 12/16/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:  
 Number TICs found: 1 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.67-63-0	2 - PROPANOL	7.30	380	JR
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC, INC.

Contract: 92126

29D3A

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 206281

Sample wt/vol: 351.1 (g/mL) G Lab File ID: E206281EV

Level: (low/med) MED Date Received: 12/07/93

% Moisture: not dec. 0 Date Analyzed: 12/16/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3-----	Chloromethane	360	U	
74-83-9-----	Bromomethane	360	U	
75-01-4-----	Vinyl Chloride	360	U	
75-00-3-----	Chloroethane	360	U	
75-09-2-----	Methylene Chloride	57	BT	180U
67-64-1-----	Acetone	43	BT	360U
75-15-0-----	Carbon Disulfide	180	U	
75-35-4-----	1,1-Dichloroethene	180	U	
75-34-3-----	1,1-Dichloroethane	180	U	
540-59-0-----	1,2-Dichloroethene (total)	180	U	
67-66-3-----	Chloroform	180	U	
107-06-2-----	1,2-Dichloroethane	180	U	
78-93-3-----	2-Butanone	360	U	
71-55-6-----	1,1,1-Trichloroethane	180	U	
56-23-5-----	Carbon Tetrachloride	180	U	
108-05-4-----	Vinyl Acetate	360	U	
75-27-4-----	Bromodichloromethane	180	U	
78-87-5-----	1,2-Dichloropropane	180	U	
10061-01-5-----	cis-1,3-Dichloropropene	180	U	
79-01-6-----	Trichloroethene	180	U	
124-48-1-----	Dibromochloromethane	180	U	
79-00-5-----	1,1,2-Trichloroethane	180	U	
71-43-2-----	Benzene	180	U	
10061-02-6-----	trans-1,3-Dichloropropene	180	U	
75-25-2-----	Bromoform	180	U	
108-10-1-----	4-Methyl-2-Pentanone	360	U	
591-78-6-----	2-Hexanone	360	U	
127-18-4-----	Tetrachloroethene	180	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	180	U	
108-88-3-----	Toluene	180	U	
108-90-7-----	Chlorobenzene	180	U	
100-41-4-----	Ethylbenzene	180	U	
100-42-5-----	Styrene	180	U	
1330-20-7-----	Xylene (total)	180	U	

74-87-3-----	Chloromethane	360	U	
74-83-9-----	Bromomethane	360	U	
75-01-4-----	Vinyl Chloride	360	U	
75-00-3-----	Chloroethane	360	U	
75-09-2-----	Methylene Chloride	57	BT	180U
67-64-1-----	Acetone	43	BT	360U
75-15-0-----	Carbon Disulfide	180	U	
75-35-4-----	1,1-Dichloroethene	180	U	
75-34-3-----	1,1-Dichloroethane	180	U	
540-59-0-----	1,2-Dichloroethene (total)	180	U	
67-66-3-----	Chloroform	180	U	
107-06-2-----	1,2-Dichloroethane	180	U	
78-93-3-----	2-Butanone	360	U	
71-55-6-----	1,1,1-Trichloroethane	180	U	
56-23-5-----	Carbon Tetrachloride	180	U	
108-05-4-----	Vinyl Acetate	360	U	
75-27-4-----	Bromodichloromethane	180	U	
78-87-5-----	1,2-Dichloropropane	180	U	
10061-01-5-----	cis-1,3-Dichloropropene	180	U	
79-01-6-----	Trichloroethene	180	U	
124-48-1-----	Dibromochloromethane	180	U	
79-00-5-----	1,1,2-Trichloroethane	180	U	
71-43-2-----	Benzene	180	U	
10061-02-6-----	trans-1,3-Dichloropropene	180	U	
75-25-2-----	Bromoform	180	U	
108-10-1-----	4-Methyl-2-Pentanone	360	U	
591-78-6-----	2-Hexanone	360	U	
127-18-4-----	Tetrachloroethene	180	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	180	U	
108-88-3-----	Toluene	180	U	
108-90-7-----	Chlorobenzene	180	U	
100-41-4-----	Ethylbenzene	180	U	
100-42-5-----	Styrene	180	U	
1330-20-7-----	Xylene (total)	180	U	

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

29D3A

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 206281

Sample wt/vol: 351.1 (g/mL) G Lab File ID: E206281EV

Level: (low/med) MED Date Received: 12/07/93

% Moisture: not dec. 0 Date Analyzed: 12/16/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

29D5A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 206283

Sample wt/vol: 375.6 (g/mL) G Lab File ID: E206283EV

Level: (low/med) MED Date Received: 12/07/93

% Moisture: not dec. 0 Date Analyzed: 12/16/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	330	U
74-83-9	Bromomethane	330	U
75-01-4	Vinyl Chloride	330	U
75-00-3	Chloroethane	330	U
75-09-2	Methylene Chloride	43	BJ 170 U
67-64-1	Acetone	330	U
75-15-0	Carbon Disulfide	170	U
75-35-4	1,1-Dichloroethene	170	U
75-34-3	1,1-Dichloroethane	170	U
540-59-0	1,2-Dichloroethene (total)	170	U
67-66-3	Chloroform	170	U
107-06-2	1,2-Dichloroethane	170	U
78-93-3	2-Butanone	330	U
71-55-6	1,1,1-Trichloroethane	170	U
56-23-5	Carbon Tetrachloride	170	U
108-05-4	Vinyl Acetate	330	U
75-27-4	Bromodichloromethane	170	U
78-87-5	1,2-Dichloropropane	170	U
10061-01-5	cis-1,3-Dichloropropene	170	U
79-01-6	Trichloroethene	170	U
124-48-1	Dibromochloromethane	170	U
79-00-5	1,1,2-Trichloroethane	170	U
71-43-2	Benzene	170	U
10061-02-6	trans-1,3-Dichloropropene	170	U
75-25-2	Bromoform	170	U
108-10-1	4-Methyl-2-Pentanone	330	U
591-78-6	2-Hexanone	330	U
127-18-4	Tetrachloroethene	38	J
79-34-5	1,1,2,2-Tetrachloroethane	170	U
108-88-3	Toluene	170	U
108-90-7	Chlorobenzene	170	U
100-41-4	Ethylbenzene	170	U
100-42-5	Styrene	170	U
1330-20-7	Xylene (total)	170	U

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: AQUATEC, INC.

Contract: 92126

29D5A

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL

Lab Sample ID: 206283

Sample wt/vol: 375.6 (g/mL) G

Lab File ID: E206283EV

Level: (low/med) MED

Date Received: 12/07/93

% Moisture: not dec. 0

Date Analyzed: 12/16/93

Column: (pack/cap) PACK

Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:  
 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC, INC.

Contract: 92126

29D5B

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 206285

Sample wt/vol: 292.6 (g/mL) G Lab File ID: E206285EV

Level: (low/med) MED Date Received: 12/07/93

% Moisture: not dec. 0 Date Analyzed: 12/16/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG Q

74-87-3-----	Chloromethane	430	U
74-83-9-----	Bromomethane	430	U
75-01-4-----	Vinyl Chloride	430	U
75-00-3-----	Chloroethane	430	U
75-09-2-----	Methylene Chloride	430	U
67-64-1-----	Acetone	430	U
75-15-0-----	Carbon Disulfide	210	U
75-35-4-----	1,1-Dichloroethene	210	U
75-34-3-----	1,1-Dichloroethane	210	U
540-59-0-----	1,2-Dichloroethene (total)	210	U
67-66-3-----	Chloroform	67	J
107-06-2-----	1,2-Dichloroethane	210	U
78-93-3-----	2-Butanone	430	U
71-55-6-----	1,1,1-Trichloroethane	210	U
56-23-5-----	Carbon Tetrachloride	210	U
108-05-4-----	Vinyl Acetate	430	U
75-27-4-----	Bromodichloromethane	210	U
78-87-5-----	1,2-Dichloropropane	210	U
10061-01-5-----	cis-1,3-Dichloropropene	210	U
79-01-6-----	Trichloroethene	210	U
124-48-1-----	Dibromochloromethane	210	U
79-00-5-----	1,1,2-Trichloroethane	210	U
71-43-2-----	Benzene	210	U
10061-02-6-----	trans-1,3-Dichloropropene	210	U
75-25-2-----	Bromoform	210	U
108-10-1-----	4-Methyl-2-Pentanone	430	U
591-78-6-----	2-Hexanone	430	U
127-18-4-----	Tetrachloroethene	100	J
79-34-5-----	1,1,2,2-Tetrachloroethane	210	U
108-88-3-----	Toluene	210	U
108-90-7-----	Chlorobenzene	210	U
100-41-4-----	Ethylbenzene	210	U
100-42-5-----	Styrene	210	U
1330-20-7-----	Xylene (total)	210	U

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

29D5B

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 206285

Sample wt/vol: 292.6 (g/mL) G Lab File ID: E206285EV

Level: (low/med) MED Date Received: 12/07/93

% Moisture: not dec. 0 Date Analyzed: 12/16/93

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:  
 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C301A

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 206442

Sample wt/vol: 256.8 (g/mL) G Lab File ID: E206442EV

Level: (low/med) MED Date Received: 12/09/93

% Moisture: not dec. 0 Date Analyzed: 12/20/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
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74-87-3-----	Chloromethane	490	U	
74-83-9-----	Bromomethane	490	U	
75-01-4-----	Vinyl Chloride	490	U	
75-00-3-----	Chloroethane	490	U	
75-09-2-----	Methylene Chloride	490	U	
67-64-1-----	Acetone	490	U	
75-15-0-----	Carbon Disulfide	240	U	
75-35-4-----	1,1-Dichloroethene	240	U	
75-34-3-----	1,1-Dichloroethane	240	U	
540-59-0-----	1,2-Dichloroethene (total)	240	U	
67-66-3-----	Chloroform	240	U	
107-06-2-----	1,2-Dichloroethane	240	U	
78-93-3-----	2-Butanone	490	U	
71-55-6-----	1,1,1-Trichloroethane	240	U	
56-23-5-----	Carbon Tetrachloride	240	U	
108-05-4-----	Vinyl Acetate	490	U	
75-27-4-----	Bromodichloromethane	240	U	
78-87-5-----	1,2-Dichloropropane	240	U	
10061-01-5-----	cis-1,3-Dichloropropene	240	U	
79-01-6-----	Trichloroethylene	240	U	
124-48-1-----	Dibromochloromethane	240	U	
79-00-5-----	1,1,2-Trichloroethane	240	U	
71-43-2-----	Benzene	240	U	
10061-02-6-----	trans-1,3-Dichloropropene	240	U	
75-25-2-----	Bromoform	240	U	
108-10-1-----	4-Methyl-2-Pentanone	490	U	
591-78-6-----	2-Hexanone	490	U	
127-18-4-----	Tetrachloroethene	240	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	240	U	
108-88-3-----	Toluene	240	U	
108-90-7-----	Chlorobenzene	240	U	
100-41-4-----	Ethylbenzene	240	U	
100-42-5-----	Styrene	240	U	
1330-20-7-----	Xylene (total)	240	U	

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C301A

Lab Name: AQUATEC, INC.	Contract: 92126	
Lab Code: AQUAI	Case No.: 92125	SAS No.: _____ SDG No.: 41105
Matrix: (soil/water) SOIL		Lab Sample ID: 206442
Sample wt/vol:	256.8 (g/mL) G	Lab File ID: E206442EV
Level:	(low/med) MED	Date Received: 12/09/93
% Moisture:	not dec. 0	Date Analyzed: 12/20/93
Column:	(pack/cap) PACK	Dilution Factor: 1.0

CONCENTRATION UNITS:  
 Number TICs found: 0 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C303A

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 206444

Sample wt/vol: 401.3 (g/mL) G Lab File ID: D206444E2V

Level: (low/med) MED Date Received: 12/09/93

% Moisture: not dec. 0 Date Analyzed: 12/20/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND			
74-87-3-----	Chloromethane	310	U	
74-83-9-----	Bromomethane	310	U	
75-01-4-----	Vinyl Chloride	310	U	
75-00-3-----	Chloroethane	310	U	
75-09-2-----	Methylene Chloride	63	J 160	U
67-64-1-----	Acetone	73	J 310	U
75-15-0-----	Carbon Disulfide	160	U	
75-35-4-----	1,1-Dichloroethene	160	U	
75-34-3-----	1,1-Dichloroethane	160	U	
540-59-0-----	1,2-Dichloroethene (total)	160	U	
67-66-3-----	Chloroform	160	U	
107-06-2-----	1,2-Dichloroethane	160	U	
78-93-3-----	2-Butanone	310	U	
71-55-6-----	1,1,1-Trichloroethane	160	U	
56-23-5-----	Carbon Tetrachloride	160	U	
108-05-4-----	Vinyl Acetate	310	U	
75-27-4-----	Bromodichloromethane	160	U	
78-87-5-----	1,2-Dichloropropane	160	U	
10061-01-5-----	cis-1,3-Dichloropropene	160	U	
79-01-6-----	Trichloroéthene	160	U	
124-48-1-----	Dibromochloromethane	160	U	
79-00-5-----	1,1,2-Trichloroethane	160	U	
71-43-2-----	Benzene	160	U	
10061-02-6-----	trans-1,3-Dichloropropene	160	U	
75-25-2-----	Bromoform	160	U	
108-10-1-----	4-Methyl-2-Pentanone	310	U	
591-78-6-----	2-Hexanone	310	U	
127-18-4-----	Tetrachloroethene	160	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	160	U	
108-88-3-----	Toluene	160	U	
108-90-7-----	Chlorobenzene	160	U	
100-41-4-----	Ethylbenzene	160	U	
100-42-5-----	Styrene	160	U	
1330-20-7-----	Xylene (total)	160	U	

123271 VAL

FORM I VOA

1/87 Rev.

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C303A

Lab Name: AQUATEC, INC.	Contract: 92126	
Lab Code: AQUAI	Case No.: 92125	SAS No.: _____ SDG No.: 41105
Matrix: (soil/water) SOIL	Lab Sample ID: 206444	
Sample wt/vol: 401.3 (g/mL) G	Lab File ID: D206444E2V	
Level: (low/med) MED	Date Received: 12/09/93	
Moisture: not dec. 0	Date Analyzed: 12/20/93	
Column: (pack/cap) PACK	Dilution Factor: 1.0	

CONCENTRATION UNITS:  
 Number TICs found: 1 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.67-63-0	2-PROPANOL	7.10	300	JR
2.				
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31.				

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C305A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 206446

Sample wt/vol: 361.8 (g/mL) G Lab File ID: E206446EV

Level: (low/med) MED Date Received: 12/09/93

% Moisture: not dec. 0 Date Analyzed: 12/21/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND			
74-87-3-----	Chloromethane	350	U	
74-83-9-----	Bromomethane	350	U	
75-01-4-----	Vinyl Chloride	350	U	
75-00-3-----	Chloroethane	350	U	
75-09-2-----	Methylene Chloride	35	J 170	U
67-64-1-----	Acetone	61	J 350	U
75-15-0-----	Carbon Disulfide	170	U	
75-35-4-----	1,1-Dichloroethene	170	U	
75-34-3-----	1,1-Dichloroethane	170	U	
540-59-0-----	1,2-Dichloroethene (total)	170	U	
67-66-3-----	Chloroform	170	U	
107-06-2-----	1,2-Dichloroethane	170	U	
78-93-3-----	2-Butanone	350	U	
71-55-6-----	1,1,1-Trichloroethane	170	U	
56-23-5-----	Carbon Tetrachloride	170	U	
108-05-4-----	Vinyl Acetate	350	U	
75-27-4-----	Bromodichloromethane	170	U	
78-87-5-----	1,2-Dichloropropane	170	U	
10061-01-5-----	cis-1,3-Dichloropropene	170	U	
79-01-6-----	Trichloroethene	170	U	
124-48-1-----	Dibromochloromethane	170	U	
79-00-5-----	1,1,2-Trichloroethane	170	U	
71-43-2-----	Benzene	170	U	
10061-02-6-----	trans-1,3-Dichloropropene	170	U	
75-25-2-----	Bromoform	170	U	
108-10-1-----	4-Methyl-2-Pentanone	350	U	
591-78-6-----	2-Hexanone	350	U	
127-18-4-----	Tetrachloroethene	170	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	170	U	
108-88-3-----	Toluene	170	U	
108-90-7-----	Chlorobenzene	170	U	
100-41-4-----	Ethylbenzene	170	U	
100-42-5-----	Styrene	170	U	
1330-20-7-----	Xylene (total)	170	U	

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C305A

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 206446

Sample wt/vol: 361.8 (g/mL) G Lab File ID: E206446EV

Level: (low/med) MED Date Received: 12/09/93

% Moisture: not dec. 0 Date Analyzed: 12/21/93

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.67-63-0	2 - PROPANOL	7.35	210	JR
2.				
5.				
6.				
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9.				
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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC, INC.

Contract: 92126

C307A

Lab Code: AQUAI Case No.: 92125 SAS No.: \_\_\_\_\_ SDG No.: 41105

Matrix: (soil/water) SOIL

Lab Sample ID: 206448

Sample wt/vol: 277.3 (g/mL) G

Lab File ID: E206448EV

Level: (low/med) MED

Date Received: 12/09/93

% Moisture: not dec. 0

Date Analyzed: 12/21/93

Column: (pack/cap) PACK

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3-----	Chloromethane	450	U
74-83-9-----	Bromomethane	450	U
75-01-4-----	Vinyl Chloride	450	U
75-00-3-----	Chloroethane	450	U
75-09-2-----	Methylene Chloride	430	230 U
67-64-1-----	Acetone	450	U
75-15-0-----	Carbon Disulfide	230	U
75-35-4-----	1,1-Dichloroethene	230	U
75-34-3-----	1,1-Dichloroethane	230	U
540-59-0-----	1,2-Dichloroethene (total)	230	U
67-66-3-----	Chloroform	230	U
107-06-2-----	1,2-Dichloroethane	230	U
78-93-3-----	2-Butanone	450	U
71-55-6-----	1,1,1-Trichloroethane	230	U
56-23-5-----	Carbon Tetrachloride	230	U
108-05-4-----	Vinyl Acetate	450	U
75-27-4-----	Bromodichloromethane	230	U
78-87-5-----	1,2-Dichloropropane	230	U
10061-01-5-----	cis-1,3-Dichloropropene	230	U
79-01-6-----	Trichloroethene	230	U
124-48-1-----	Dibromochloromethane	230	U
79-00-5-----	1,1,2-Trichloroethane	230	U
71-43-2-----	Benzene	230	U
10061-02-6-----	trans-1,3-Dichloropropene	230	U
75-25-2-----	Bromoform	230	U
108-10-1-----	4-Methyl-2-Pentanone	450	U
591-78-6-----	2-Hexanone	450	U
127-18-4-----	Tetrachloroethene	230	U
79-34-5-----	1,1,2,2-Tetrachloroethane	230	U
108-88-3-----	Toluene	230	U
108-90-7-----	Chlorobenzene	230	U
100-41-4-----	Ethylbenzene	230	U
100-42-5-----	Styrene	230	U
1330-20-7-----	Xylene (total)	230	U

74-87-3-----	Chloromethane	450	U
74-83-9-----	Bromomethane	450	U
75-01-4-----	Vinyl Chloride	450	U
75-00-3-----	Chloroethane	450	U
75-09-2-----	Methylene Chloride	430	230 U
67-64-1-----	Acetone	450	U
75-15-0-----	Carbon Disulfide	230	U
75-35-4-----	1,1-Dichloroethene	230	U
75-34-3-----	1,1-Dichloroethane	230	U
540-59-0-----	1,2-Dichloroethene (total)	230	U
67-66-3-----	Chloroform	230	U
107-06-2-----	1,2-Dichloroethane	230	U
78-93-3-----	2-Butanone	450	U
71-55-6-----	1,1,1-Trichloroethane	230	U
56-23-5-----	Carbon Tetrachloride	230	U
108-05-4-----	Vinyl Acetate	450	U
75-27-4-----	Bromodichloromethane	230	U
78-87-5-----	1,2-Dichloropropane	230	U
10061-01-5-----	cis-1,3-Dichloropropene	230	U
79-01-6-----	Trichloroethene	230	U
124-48-1-----	Dibromochloromethane	230	U
79-00-5-----	1,1,2-Trichloroethane	230	U
71-43-2-----	Benzene	230	U
10061-02-6-----	trans-1,3-Dichloropropene	230	U
75-25-2-----	Bromoform	230	U
108-10-1-----	4-Methyl-2-Pentanone	450	U
591-78-6-----	2-Hexanone	450	U
127-18-4-----	Tetrachloroethene	230	U
79-34-5-----	1,1,2,2-Tetrachloroethane	230	U
108-88-3-----	Toluene	230	U
108-90-7-----	Chlorobenzene	230	U
100-41-4-----	Ethylbenzene	230	U
100-42-5-----	Styrene	230	U
1330-20-7-----	Xylene (total)	230	U

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C307A

Lab Name:AQUATEC, INC.	Contract:92126		
Lab Code: AQUAI	Case No.: 92125	SAS No.: _____	SDG No.: 41105
Matrix: (soil/water)SOIL		Lab Sample ID: 206448	
Sample wt/vol:	277.3 (g/mL)G	Lab File ID: E206448EV	
Level:	(low/med) MED	Date Received: 12/09/93	
% Moisture:	not dec. 0	Date Analyzed: 12/21/93	
Column:	(pack/cap) PACK	Dilution Factor:	1.0

CONCENTRATION UNITS:  
 Number TICs found: 0 (ug/L or ug/Kg)UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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## **APPENDIX B-2      Semi-Volatile Organic Compounds**

Note: hand-written edits or notations where they exist on analysis sheets were added by the data validator and reflect the validator's decisions based on evaluation of dilution results, re-analyses, method blanks and equipment blanks.

1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PK10A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI

Case No.: 92125

SAS No.:

SDG No.: 41105

Matrix: (soil/water) SOIL

Lab Sample ID: 205972

Sample wt/vol:

30.0 (g/mL) G

Lab File ID: P205972S.D

Level: (low/med)

LOW

Date Received: 12/03/93

% Moisture: 7

decanted: (Y/N) N

Date Extracted: 12/13/93

Concentrated Extract Volume: 500 (UL)

Date Analyzed: 12/21/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

108-95-2-----	Phenol	350	U	J
111-44-4-----	bis(-2-Chloroethyl) Ether	350	U	
95-57-8-----	2-Chlorophenol	350	U	
541-73-1-----	1,3-Dichlorobenzene	350	U	
106-46-7-----	1,4-Dichlorobenzene	350	U	
95-50-1-----	1,2-Dichlorobenzene	350	U	
95-48-7-----	2-Methylphenol	350	U	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	350	U	
106-44-5-----	4-Methylphenol	350	U	
621-64-7-----	N-Nitroso-di-n-propylamine	350	U	
67-72-1-----	Hexachloroethane	350	U	
98-95-3-----	Nitrobenzene	350	U	
78-59-1-----	Isophorone	350	U	
88-75-5-----	2-Nitrophenol	350	U	
105-67-9-----	2,4-Dimethylphenol	350	U	
111-91-1-----	bis(2-Chloroethoxy)methane	350	U	
120-83-2-----	2,4-Dichlorophenol	350	U	
120-82-1-----	1,2,4-Trichlorobenzene	350	U	
91-20-3-----	Naphthalene	350	U	
106-47-8-----	4-Chloroaniline	350	U	
87-68-3-----	Hexachlorobutadiene	350	U	
59-50-7-----	4-Chloro-3-Methylphenol	350	U	
91-57-6-----	2-Methylnaphthalene	350	U	
77-47-4-----	Hexachlorocyclopentadiene	350	U	
88-06-2-----	2,4,6-Trichlorophenol	350	U	
95-95-4-----	2,4,5-Trichlorophenol	860	U	
91-58-7-----	2-Chloronaphthalene	350	U	
88-74-4-----	2-Nitroaniline	860	U	
131-11-3-----	Dimethylphthalate	350	U	
208-96-8-----	Acenaphthylene	350	U	
606-20-2-----	2,6-Dinitrotoluene	350	U	
99-09-2-----	3-Nitroaniline	860	U	
83-32-9-----	Acenaphthene	350	U	

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PK10A

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205972

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P205972S.D

Level: (low/med) LOW Date Received: 12/03/93

% Moisture: 7 decanted: (Y/N) N Date Extracted: 12/13/93

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	UG/KG
		Q	

51-28-5-----	2,4-Dinitrophenol	860	U
100-02-7-----	4-Nitrophenol	860	U
132-64-9-----	Dibenzofuran	350	U
121-14-2-----	2,4-Dinitrotoluene	350	U
84-66-2-----	Diethylphthalate	350	U
7005-72-3-----	4-Chlorophenyl-phenylether	350	U
86-73-7-----	Fluorene	350	U
100-01-6-----	4-Nitroaniline	860	U
534-52-1-----	4,6-Dinitro-2-methylphenol	860	U
86-30-6-----	N-nitrosodiphenylamine (1)	350	U
101-55-3-----	4-Bromophenyl-phenylether	350	U
118-74-1-----	Hexachlorobenzene	350	U
87-86-5-----	Pentachlorophenol	860	U
85-01-8-----	Phenanthrene	350	U
120-12-7-----	Anthracene	350	U
86-74-8-----	Carbazole	350	U
84-74-2-----	Di-n-butylphthalate	350	U
206-44-0-----	Fluoranthene	350	U
129-00-0-----	Pyrene	350	U
85-68-7-----	Butylbenzylphthalate	350	U
91-94-1-----	3,3'-Dichlorobenzidine	350	U
56-55-3-----	Benzo(a)anthracene	350	U
218-01-9-----	Chrysene	350	U
117-81-7-----	bis(2-Ethylhexyl)phthalate	350	U
117-84-0-----	Di-n-octylphthalate	350	U
205-99-2-----	Benzo(b)fluoranthene	350	U
207-08-9-----	Benzo(k)fluoranthene	350	U
50-32-8-----	Benzo(a)pyrene	350	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	350	U
53-70-3-----	Dibenz(a,h)anthracene	350	U
191-24-2-----	Benzo(g,h,i)perylene	350	U

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PK10A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI

Case No.: 92125

SAS No.:

SDG No.: 41105

Matrix: (soil/water) SOIL

Lab Sample ID: 205972

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: P205972S.D

Level: (low/med) LOW

Date Received: 12/03/93

% Moisture: 7 decanted: (Y/N) N

Date Extracted: 12/13/93

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 12/21/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123-42-2	2-Pentanone, 4-hydroxy-4-methyl	7.869	2300	NJAB
2.	Unknown aliphatic acid ester	34.586	99	JB
3.	Unknown	38.213	140	J
4.				R
5.				R
6.				R
7.				R
8.				R
9.				R
10.				R
11.				R
12.				R
13.				R
14.				R
15.				R
16.				R
17.				R
18.				R
19.				R
20.				R
21.				R
22.				R
23.				R
24.				R
25.				R
26.				R
27.				R
28.				R
29.				R
30.				R

1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PK10B

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI

Case No.: 92125

SAS No.:

SDG No.: 41105

Matrix: (soil/water) SOIL

Lab Sample ID: 205974

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: P205974S.D

Level: (low/med) LOW

Date Received: 12/03/93

% Moisture: 7 decanted: (Y/N) N

Date Extracted: 12/13/93

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 12/21/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
---------	----------	---	-------	---

108-95-2-----	Phenol	350	U	J
111-44-4-----	bis (-2-Chloroethyl) Ether	350	U	
95-57-8-----	2-Chlorophenol	350	U	
541-73-1-----	1,3-Dichlorobenzene	350	U	
106-46-7-----	1,4-Dichlorobenzene	350	U	
95-50-1-----	1,2-Dichlorobenzene	350	U	
95-48-7-----	2-Methylphenol	350	U	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	350	U	
106-44-5-----	4-Methylphenol	350	U	
621-64-7-----	N-Nitroso-di-n-propylamine	350	U	
67-72-1-----	Hexachloroethane	350	U	
98-95-3-----	Nitrobenzene	350	U	
78-59-1-----	Isophorone	350	U	
88-75-5-----	2-Nitrophenol	350	U	
105-67-9-----	2,4-Dimethylphenol	350	U	
111-91-1-----	bis (2-Chloroethoxy)methane	350	U	
120-83-2-----	2,4-Dichlorophenol	350	U	
120-82-1-----	1,2,4-Trichlorobenzene	350	U	
91-20-3-----	Naphthalene	350	U	
106-47-8-----	4-Chloroaniline	350	U	
87-68-3-----	Hexachlorobutadiene	350	U	
59-50-7-----	4-Chloro-3-Methylphenol	350	U	
91-57-6-----	2-Methylnaphthalene	350	U	
77-47-4-----	Hexachlorocyclopentadiene	350	U	
88-06-2-----	2,4,6-Trichlorophenol	350	U	
95-95-4-----	2,4,5-Trichlorophenol	860	U	
91-58-7-----	2-Chloronaphthalene	350	U	
88-74-4-----	2-Nitroaniline	860	U	
131-11-3-----	Dimethylphthalate	350	U	
208-96-8-----	Acenaphthylene	350	U	
606-20-2-----	2,6-Dinitrotoluene	350	U	
99-09-2-----	3-Nitroaniline	860	U	
83-32-9-----	Acenaphthene	350	U	V

1C  
SEMITVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PK10B

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205974

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P205974S.D

Level: (low/med) LOW Date Received: 12/03/93

% Moisture: 7 decanted: (Y/N) N Date Extracted: 12/13/93

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
51-28-5-----	2,4-Dinitrophenol	860	U	J
100-02-7-----	4-Nitrophenol	860	U	
132-64-9-----	Dibenzofuran	350	U	
121-14-2-----	2,4-Dinitrotoluene	350	U	
84-66-2-----	Diethylphthalate	350	U	
7005-72-3-----	4-Chlorophenyl-phenylether	350	U	
86-73-7-----	Fluorene	350	U	
100-01-6-----	4-Nitroaniline	860	U	
534-52-1-----	4,6-Dinitro-2-methylphenol	860	U	
86-30-6-----	N-nitrosodiphenylamine (1)	350	U	
101-55-3-----	4-Bromophenyl-phenylether	350	U	
118-74-1-----	Hexachlorobenzene	350	U	
87-86-5-----	Pentachlorophenol	860	U	
85-01-8-----	Phenanthrene	350	U	
120-12-7-----	Anthracene	350	U	
86-74-8-----	Carbazole	350	U	
84-74-2-----	Di-n-butylphthalate	350	U	
206-44-0-----	Fluoranthene	350	U	
129-00-0-----	Pyrene	350	U	
85-68-7-----	Butylbenzylphthalate	350	U	
91-94-1-----	3,3'-Dichlorobenzidine	350	U	
56-55-3-----	Benzo(a)anthracene	350	U	
218-01-9-----	Chrysene	350	U	
117-81-7-----	bis(2-Ethylhexyl)phthalate	350	U	
117-84-0-----	Di-n-octylphthalate	350	U	
205-99-2-----	Benzo(b)fluoranthene	350	U	
207-08-9-----	Benzo(k)fluoranthene	350	U	
50-32-8-----	Benzo(a)pyrene	350	U	
193-39-5-----	Indeno(1,2,3-cd)pyrene	350	U	
53-70-3-----	Dibenz(a,h)anthracene	350	U	
191-24-2-----	Benzo(g,h,i)perylene	350	U	V
		---		

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PK10B

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205974

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P205974S.D

Level: (low/med) LOW Date Received: 12/03/93

% Moisture: 7 decanted: (Y/N) N Date Extracted: 12/13/93

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.2

CONCENTRATION UNITS:

Number TICs found: 2 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123-42-2	2-Pentanone, 4-hydroxy-4-methyl	7.876	2800	NJAB
2.	Unknown aliphatic acid ester	34.587	110	JB
3.				
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1B  
SEMITVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TPI4A  
TP4A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI

Case No.: 92125

SAS No.:

SDG No.: 41105

Matrix: (soil/water) SOIL

Lab Sample ID: 205980

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: P205980S.D

Level: (low/med) LOW

Date Received: 12/03/93

% Moisture: 5 decanted: (Y/N) N

Date Extracted: 12/13/93

Concentrated Extract Volume: 500 (UL)

Date Analyzed: 12/21/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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108-95-2-----	Phenol	350	U
111-44-4-----	bis(-2-Chloroethyl)Ether	350	U
95-57-8-----	2-Chlorophenol	350	U
541-73-1-----	1,3-Dichlorobenzene	350	U
106-46-7-----	1,4-Dichlorobenzene	350	U
95-50-1-----	1,2-Dichlorobenzene	350	U
95-48-7-----	2-Methylphenol	350	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	350	U
106-44-5-----	4-Methylphenol	350	U
621-64-7-----	N-Nitroso-di-n-propylamine	350	U
67-72-1-----	Hexachloroethane	350	U
98-95-3-----	Nitrobenzene	350	U
78-59-1-----	Isophorone	350	U
88-75-5-----	2-Nitrophenol	350	U
105-67-9-----	2,4-Dimethylphenol	350	U
111-91-1-----	bis(2-Chloroethoxy)methane	350	U
120-83-2-----	2,4-Dichlorophenol	350	U
120-82-1-----	1,2,4-Trichlorobenzene	350	U
91-20-3-----	Naphthalene	350	U
106-47-8-----	4-Chloroaniline	350	U
87-68-3-----	Hexachlorobutadiene	350	U
59-50-7-----	4-Chloro-3-Methylphenol	350	U
91-57-6-----	2-Methylnaphthalene	350	U
77-47-4-----	Hexachlorocyclopentadiene	350	U
88-06-2-----	2,4,6-Trichlorophenol	350	U
95-95-4-----	2,4,5-Trichlorophenol	840	U
91-58-7-----	2-Chloronaphthalene	350	U
88-74-4-----	2-Nitroaniline	840	U
131-11-3-----	Dimethylphthalate	350	U
208-96-8-----	Acenaphthylene	350	U
606-20-2-----	2,6-Dinitrotoluene	350	U
99-09-2-----	3-Nitroaniline	840	U
83-32-9-----	Acenaphthene	350	U

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TPI4A  
TP4A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI

Case No.: 92125

SAS No.:

SDG No.: 41105

Matrix: (soil/water) SOIL

Lab Sample ID: 205980

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: P205980S.D

Level: (low/med) LOW

Date Received: 12/03/93

% Moisture: 5 decanted: (Y/N) N

Date Extracted: 12/13/93

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 12/21/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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51-28-5-----	2,4-Dinitrophenol	840	U
100-02-7-----	4-Nitrophenol	840	U
132-64-9-----	Dibenzofuran	350	U
121-14-2-----	2,4-Dinitrotoluene	350	U
84-66-2-----	Diethylphthalate	350	U
7005-72-3-----	4-Chlorophenyl-phenylether	350	U
86-73-7-----	Fluorene	350	U
100-01-6-----	4-Nitroaniline	840	U
534-52-1-----	4,6-Dinitro-2-methylphenol	840	U
86-30-6-----	N-nitrosodiphenylamine (1)	350	U
101-55-3-----	4-Bromophenyl-phenylether	350	U
118-74-1-----	Hexachlorobenzene	350	U
87-86-5-----	Pentachlorophenol	840	U
85-01-8-----	Phenanthrene	350	U
120-12-7-----	Anthracene	350	U
86-74-8-----	Carbazole	350	U
84-74-2-----	Di-n-butylphthalate	350	U
206-44-0-----	Fluoranthene	350	U
129-00-0-----	Pyrene	350	U
85-68-7-----	Butylbenzylphthalate	350	U
91-94-1-----	3,3'-Dichlorobenzidine	350	U
56-55-3-----	Benzo(a)anthracene	350	U
218-01-9-----	Chrysene	350	U
117-81-7-----	bis(2-Ethylhexyl)phthalate	350	U
117-84-0-----	Di-n-octylphthalate	350	U
205-99-2-----	Benzo(b)fluoranthene	350	U
207-08-9-----	Benzo(k)fluoranthene	350	U
50-32-8-----	Benzo(a)pyrene	350	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	350	U
53-70-3-----	Dibenz(a,h)anthracene	350	U
191-24-2-----	Benzo(g,h,i)perylene	350	U

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TPI4A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI

Case No.: 92125

SAS No.:

SDG No.: 41105

Matrix: (soil/water) SOIL

Lab Sample ID: 205980

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: P205980S.D

Level: (low/med) LOW

Date Received: 12/03/93

% Moisture: 5 decanted: (Y/N) N

Date Extracted: 12/13/93

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 12/21/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123-42-2	2-Pentanone, 4-hydroxy-4-met	7.863	2900	NJAB
2.				
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C276A

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205970

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P205970S.D

Level: (low/med) LOW Date Received: 12/03/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 12/13/93

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/20/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.3

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	UG/KG

108-95-2-----	Phenol	360	U	J
111-44-4-----	bis(-2-Chloroethyl)Ether	360	U	
95-57-8-----	2-Chlorophenol	360	U	
541-73-1-----	1,3-Dichlorobenzene	360	U	
106-46-7-----	1,4-Dichlorobenzene	360	U	
95-50-1-----	1,2-Dichlorobenzene	360	U	
95-48-7-----	2-Methylphenol	360	U	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	360	U	
106-44-5-----	4-Methylphenol	360	U	
621-64-7-----	N-Nitroso-di-n-propylamine	360	U	
67-72-1-----	Hexachloroethane	360	U	
98-95-3-----	Nitrobenzene	360	U	
78-59-1-----	Isophorone	360	U	
88-75-5-----	2-Nitrophenol	360	U	
105-67-9-----	2,4-Dimethylphenol	360	U	
111-91-1-----	bis(2-Chloroethoxy)methane	360	U	
120-83-2-----	2,4-Dichlorophenol	360	U	
120-82-1-----	1,2,4-Trichlorobenzene	360	U	
91-20-3-----	Naphthalene	360	U	
106-47-8-----	4-Chloroaniline	360	U	
87-68-3-----	Hexachlorobutadiene	360	U	
59-50-7-----	4-Chloro-3-Methylphenol	360	U	
91-57-6-----	2-Methylnaphthalene	360	U	
77-47-4-----	Hexachlorocyclopentadiene	360	U	
88-06-2-----	2,4,6-Trichlorophenol	360	U	
95-95-4-----	2,4,5-Trichlorophenol	870	U	
91-58-7-----	2-Chloronaphthalene	360	U	
88-74-4-----	2-Nitroaniline	870	U	
131-11-3-----	Dimethylphthalate	360	U	
208-96-8-----	Acenaphthylene	360	U	
606-20-2-----	2,6-Dinitrotoluene	360	U	
99-09-2-----	3-Nitroaniline	870	U	
83-32-9-----	Acenaphthene	360	U	▼

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C276A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI

Case No.: 92125

SAS No.:

SDG No.: 41105

Matrix: (soil/water) SOIL

Lab Sample ID: 205970

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: P205970S.D

Level: (low/med) LOW

Date Received: 12/03/93

% Moisture: 8 decanted: (Y/N) N

Date Extracted: 12/13/93

Concentrated Extract Volume: 500(UL)

Date Analyzed: 12/20/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
		870	U	

51-28-5-----	2,4-Dinitrophenol	870	U	J
100-02-7-----	4-Nitrophenol	870	U	
132-64-9-----	Dibenzofuran	360	U	
121-14-2-----	2,4-Dinitrotoluene	360	U	
84-66-2-----	Diethylphthalate	360	U	
7005-72-3-----	4-Chlorophenyl-phenylether	360	U	
86-73-7-----	Fluorene	360	U	
100-01-6-----	4-Nitroaniline	870	U	
534-52-1-----	4,6-Dinitro-2-methylphenol	870	U	
86-30-6-----	N-nitrosodiphenylamine (1)	360	U	
101-55-3-----	4-Bromophenyl-phenylether	360	U	
118-74-1-----	Hexachlorobenzene	360	U	
87-86-5-----	Pentachlorophenol	870	U	
85-01-8-----	Phenanthrene	360	U	
120-12-7-----	Anthracene	360	U	
86-74-8-----	Carbazole	360	U	
84-74-2-----	Di-n-butylphthalate	360	U	
206-44-0-----	Fluoranthene	360	U	
129-00-0-----	Pyrene	360	U	
85-68-7-----	Butylbenzylphthalate	360	U	
91-94-1-----	3,3'-Dichlorobenzidine	360	U	
56-55-3-----	Benzo(a)anthracene	360	U	
218-01-9-----	Chrysene	360	U	
117-81-7-----	bis(2-Ethylhexyl)phthalate	25	JB	360U
117-84-0-----	Di-n-octylphthalate	360	U	J
205-99-2-----	Benzo(b)fluoranthene	360	U	
207-08-9-----	Benzo(k)fluoranthene	360	U	
50-32-8-----	Benzo(a)pyrene	360	U	
193-39-5-----	Indeno(1,2,3-cd)pyrene	360	U	
53-70-3-----	Dibenz(a,h)anthracene	360	U	
191-24-2-----	Benzo(g,h,i)perylene	360	U	V

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C276A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI

Case No.: 92125

SAS No.:

SDG No.: 41105

Matrix: (soil/water) SOIL

Lab Sample ID: 205970

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: P205970S.D

Level: (low/med) LOW

Date Received: 12/03/93

% Moisture: 8 decanted: (Y/N) N

Date Extracted: 12/13/93

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 12/20/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.3

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123-42-2	2-Pentanone, 4-hydroxy-4-methyl	7.903	4000	NJAB
2.	Unknown aliphatic compound	10.520	84	JB
3.	Unknown aliphatic acid ester	34.579	140	JB
4.	Unknown	38.182	140	J
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C284A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI

Case No.: 92125

SAS No.:

SDG No.: 41105

Matrix: (soil/water) SOIL

Lab Sample ID: 206231

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: P206231S.D

Level: (low/med) LOW

Date Received: 12/06/93

% Moisture: 8 decanted: (Y/N) N

Date Extracted: 12/14/93

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 12/22/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q

108-95-2-----	Phenol	360	U	J
111-44-4-----	bis(-2-Chloroethyl)Ether	360	U	
95-57-8-----	2-Chlorophenol	360	U	
541-73-1-----	1,3-Dichlorobenzene	360	U	
106-46-7-----	1,4-Dichlorobenzene	360	U	
95-50-1-----	1,2-Dichlorobenzene	360	U	
95-48-7-----	2-Methylphenol	360	U	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	360	U	
106-44-5-----	4-Methylphenol	360	U	
621-64-7-----	N-Nitroso-di-n-propylamine	360	U	
67-72-1-----	Hexachloroethane	360	U	
98-95-3-----	Nitrobenzene	360	U	
78-59-1-----	Isophorone	360	U	
88-75-5-----	2-Nitrophenol	360	U	
105-67-9-----	2,4-Dimethylphenol	360	U	
111-91-1-----	bis(2-Chloroethoxy)methane	360	U	
120-83-2-----	2,4-Dichlorophenol	360	U	
120-82-1-----	1,2,4-Trichlorobenzene	360	U	
91-20-3-----	Naphthalene	360	U	
106-47-8-----	4-Chloroaniline	360	U	
87-68-3-----	Hexachlorobutadiene	360	U	
59-50-7-----	4-Chloro-3-Methylphenol	360	U	
91-57-6-----	2-Methylnaphthalene	360	U	
77-47-4-----	Hexachlorocyclopentadiene	360	U	
88-06-2-----	2,4,6-Trichlorophenol	360	U	
95-95-4-----	2,4,5-Trichlorophenol	870	U	
91-58-7-----	2-Chloronaphthalene	360	U	
88-74-4-----	2-Nitroaniline	870	U	
131-11-3-----	Dimethylphthalate	360	U	
208-96-8-----	Acenaphthylene	360	U	
606-20-2-----	2,6-Dinitrotoluene	360	U	
99-09-2-----	3-Nitroaniline	870	U	
83-32-9-----	Acenaphthene	360	U	

1C  
SEMITVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C284A

Lab Name: AQUATEC, INC.

Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 206231

Sample wt/vol: 30.1 (g/mL) G Lab File ID: P206231S.D

Level: (low/med) LOW Date Received: 12/06/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 12/14/93

Concentrated Extract Volume: 500(UL) Date Analyzed: 12/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	UG/KG

51-28-5-----	2,4-Dinitrophenol	870	U	J
100-02-7-----	4-Nitrophenol	870	U	
132-64-9-----	Dibenzofuran	360	U	
121-14-2-----	2,4-Dinitrotoluene	360	U	
84-66-2-----	Diethylphthalate	360	U	
7005-72-3-----	4-Chlorophenyl-phenylether	360	U	
86-73-7-----	Fluorene	360	U	
100-01-6-----	4-Nitroaniline	870	U	
534-52-1-----	4,6-Dinitro-2-methylphenol	870	U	
86-30-6-----	N-nitrosodiphenylamine (1)	360	U	
101-55-3-----	4-Bromophenyl-phenylether	360	U	
118-74-1-----	Hexachlorobenzene	360	U	
87-86-5-----	Pentachlorophenol	870	U	
85-01-8-----	Phenanthrene	360	U	
120-12-7-----	Anthracene	360	U	
86-74-8-----	Carbazole	360	U	
84-74-2-----	Di-n-butylphthalate	360	U	
206-44-0-----	Fluoranthene	360	U	
129-00-0-----	Pyrene	360	U	
85-68-7-----	Butylbenzylphthalate	360	U	
91-94-1-----	3,3'-Dichlorobenzidine	360	U	
56-55-3-----	Benzo(a)anthracene	360	U	
218-01-9-----	Chrysene	360	U	
117-81-7-----	bis(2-Ethylhexyl)phthalate	29	JB	500U
117-84-0-----	Di-n-octylphthalate	360	U	J
205-99-2-----	Benzo(b)fluoranthene	360	U	
207-08-9-----	Benzo(k)fluoranthene	360	U	
50-32-8-----	Benzo(a)pyrene	360	U	
193-39-5-----	Indeno(1,2,3-cd)pyrene	360	U	
53-70-3-----	Dibenz(a,h)anthracene	360	U	
191-24-2-----	Benzo(g,h,i)perylene	360	U	

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C284A

Lab Name: AQUATEC, INC. Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 206231

Sample wt/vol: 30.1 (g/mL) G Lab File ID: P206231S.D

Level: (low/med) LOW Date Received: 12/06/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 12/14/93

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123-42-2	2-Pentanone, 4-hydroxy-4-methyl	8.302	12000	NJAB
2.	Unknown aliphatic alcohol	16.269	77	JB
3.	Unknown aliphatic acid ester	34.619	180	J
4.	Unknown	38.507	120	J
5.				R
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
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20.				
21.				
22.				
23.				
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25.				
26.				
27.				
28.				
29.				
30.				

## **APPENDIX B-3      Pesticides/PCB Analyses**

Note: hand-written edits or notations where they exist on analysis sheets were added by the data validator and reflect the validator's decisions based on evaluation of dilution results, re-analyses, method blanks and equipment blanks.

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC INC

Contract: 92126

PK10A

Lab Code: AQUAI	Case No.: 92125	SAS No.:	SDG No.: 41105
Matrix: (soil/water) SOIL		Lab Sample ID: 205972	
Sample wt/vol:	30.0 (g/mL) G	Lab File ID:	
% Moisture:	7 decanted: (Y/N) N	Date Received: 12/03/93	
Extraction:	(SepF/Cont/Sonc)	SONC	Date Extracted: 12/13/93
Concentrated Extract Volume:	5000 (uL)	Date Analyzed: 12/29/93	
Injection Volume:	1.00 (uL)	Dilution Factor: 1.00	
GPC Cleanup:	(Y/N) Y	pH: 8.5	Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
319-84-6-----	alpha-BHC	1.8	U	J
319-85-7-----	beta-BHC	1.8	U	
319-86-8-----	delta-BHC	1.8	U	
58-89-9-----	gamma-BHC (Lindane)	1.8	U	
76-44-8-----	Heptachlor	1.8	U	
309-00-2-----	Aldrin	1.8	U	
1024-57-3-----	Heptachlor epoxide	1.8	U	
959-98-8-----	Endosulfan I	1.8	U	
60-57-1-----	Dieldrin	3.5	U	
72-55-9-----	4, 4'-DDE	3.5	U	
72-20-8-----	Endrin	3.5	U	
33213-65-9-----	Endosulfan II	3.5	U	
72-54-8-----	4, 4'-DDD	3.5	U	
1031-07-8-----	Endosulfan sulfate	3.5	U	
50-29-3-----	4, 4'-DDT	3.5	U	
72-43-5-----	Methoxychlor	18	U	
53494-70-5-----	Endrin ketone	3.5	U	
7421-93-4-----	Endrin aldehyde	3.5	U	
5103-71-9-----	alpha-Chlordane	1.8	U	
5103-74-2-----	gamma-Chlordane	1.8	U	
8001-35-2-----	Toxaphene	180	U	
12674-11-2-----	Aroclor-1016	35	U	
11104-28-2-----	Aroclor-1221	72	U	
11141-16-5-----	Aroclor-1232	35	U	
53469-21-9-----	Aroclor-1242	35	U	
12672-29-6-----	Aroclor-1248	35	U	
11097-69-1-----	Aroclor-1254	35	U	
11096-82-5-----	Aroclor-1260	35	U	▼

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PK10B

Lab Name: AQUATEC INC

Contract: 92126

Lab Code: AQUAI Case No.: 92125 SAS No.: SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205974

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 7 decanted: (Y/N) N Date Received: 12/03/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 12/13/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/29/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.2 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

319-84-6-----alpha-BHC	1.8	U	J
319-85-7-----beta-BHC	1.8	U	
319-86-8-----delta-BHC	1.8	U	
58-89-9-----gamma-BHC (Lindane)	1.8	U	
76-44-8-----Heptachlor	1.8	U	
309-00-2-----Aldrin	1.8	U	
1024-57-3-----Heptachlor epoxide	1.8	U	
959-98-8-----Endosulfan I	1.8	U	
60-57-1-----Dieldrin	3.5	U	
72-55-9-----4, 4'-DDE	3.5	U	
72-20-8-----Endrin	3.5	U	
33213-65-9-----Endosulfan II	3.5	U	
72-54-8-----4, 4'-DDD	3.5	U	
1031-07-8-----Endosulfan sulfate	3.5	U	
50-29-3-----4, 4'-DDT	3.5	U	
72-43-5-----Methoxychlor	18	U	
53494-70-5-----Endrin ketone	3.5	U	
7421-93-4-----Endrin aldehyde	3.5	U	
5103-71-9-----alpha-Chlordane	1.8	U	
5103-74-2-----gamma-Chlordane	1.8	U	
8001-35-2-----Toxaphene	180	U	
12674-11-2-----Aroclor-1016	35	U	
11104-28-2-----Aroclor-1221	72	U	
11141-16-5-----Aroclor-1232	35	U	
53469-21-9-----Aroclor-1242	35	U	
12672-29-6-----Aroclor-1248	35	U	
11097-69-1-----Aroclor-1254	35	U	
11096-82-5-----Aroclor-1260	35	U	V

122771 VAL

FORM I PEST

3 / 90

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC INC

Contract: 92126

*TPV*  
TPI4A  
TPL4A

Lab Code: AQUAI Case No.: 92125 SAS No.: SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 205980

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 5 decanted: (Y/N) N Date Received: 12/03/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 12/13/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/29/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND			
319-84-6-----	alpha-BHC	1.8	U	J
319-85-7-----	beta-BHC	1.8	U	
319-86-8-----	delta-BHC	1.8	U	
58-89-9-----	gamma-BHC (Lindane)	1.8	U	
76-44-8-----	Heptachlor	1.8	U	
309-00-2-----	Aldrin	1.8	U	
1024-57-3-----	Heptachlor epoxide	1.8	U	
959-98-8-----	Endosulfan I	1.8	U	
60-57-1-----	Dieldrin	3.5	U	
72-55-9-----	4,4'-DDE	3.5	U	
72-20-8-----	Endrin	3.5	U	
33213-65-9-----	Endosulfan II	3.5	U	
72-54-8-----	4,4'-DDD	3.5	U	
1031-07-8-----	Endosulfan sulfate	3.5	U	
50-29-3-----	4,4'-DDT	3.5	U	
72-43-5-----	Methoxychlor	18	U	
53494-70-5-----	Endrin ketone	3.5	U	
7421-93-4-----	Endrin aldehyde	3.5	U	
5103-71-9-----	alpha-Chlordane	1.8	U	
5103-74-2-----	gamma-Chlordane	1.8	U	
8001-35-2-----	Toxaphene	180	U	
12674-11-2-----	Aroclor-1016	35	U	
11104-28-2-----	Aroclor-1221	71	U	
11141-16-5-----	Aroclor-1232	35	U	
53469-21-9-----	Aroclor-1242	35	U	
12672-29-6-----	Aroclor-1248	35	U	
11097-69-1-----	Aroclor-1254	35	U	
11096-82-5-----	Aroclor-1260	35	U	

122773 VAL

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C276A

Lab Name: AQUATEC INC

Contract: 92126

Lab Code: AQUAI Case No.: 92125

SAS No.:

SDG No.: 41105

Matrix: (soil/water) SOIL

Lab Sample ID: 205970

Sample wt/vol: 30.0 (g/mL) G

Lab File ID:

% Moisture: 8 decanted: (Y/N) N

Date Received: 12/03/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 12/13/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 12/29/93

Injection Volume: 1.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.3

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6-----	alpha-BHC	1.8	U J
319-85-7-----	beta-BHC	1.8	U
319-86-8-----	delta-BHC	1.8	U
58-89-9-----	gamma-BHC (Lindane)	1.8	U
76-44-8-----	Heptachlor	1.8	U
309-00-2-----	Aldrin	1.8	U
1024-57-3-----	Heptachlor epoxide	1.8	U
959-98-8-----	Endosulfan I	1.8	U
60-57-1-----	Dieldrin	3.6	U
72-55-9-----	4,4'-DDE	3.6	U
72-20-8-----	Endrin	3.6	U
33213-65-9-----	Endosulfan II	3.6	U
72-54-8-----	4,4'-DDD	3.6	U
1031-07-8-----	Endosulfan sulfate	3.6	U
50-29-3-----	4,4'-DDT	3.6	U
72-43-5-----	Methoxychlor	18	U
53494-70-5-----	Endrin ketone	3.6	U
7421-93-4-----	Endrin aldehyde	3.6	U
5103-71-9-----	alpha-Chlordane	1.8	U
5103-74-2-----	gamma-Chlordane	1.8	U
8001-35-2-----	Toxaphene	180	U
12674-11-2-----	Aroclor-1016	36	U
11104-28-2-----	Aroclor-1221	73	U
11141-16-5-----	Aroclor-1232	36	U
53469-21-9-----	Aroclor-1242	36	U
12672-29-6-----	Aroclor-1248	36	U
11097-69-1-----	Aroclor-1254	36	U
11096-82-5-----	Aroclor-1260	36	U

122768 VAL

FORM I PEST

3/90

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC INC

Contract: 92126

C284A

Lab Code: AQUAI Case No.: 92125 SAS No.: SDG No.: 41105

Matrix: (soil/water) SOIL Lab Sample ID: 206231

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 8 decanted: (Y/N) N Date Received: 12/06/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 12/14/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/29/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.4 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
319-84-6-----	alpha-BHC	1.8	U	J
319-85-7-----	beta-BHC	1.8	U	
319-86-8-----	delta-BHC	1.8	U	
58-89-9-----	gamma-BHC (Lindane)	1.8	U	
76-44-8-----	Heptachlor	1.8	U	
309-00-2-----	Aldrin	1.8	U	
1024-57-3-----	Heptachlor epoxide	1.8	U	
959-98-8-----	Endosulfan I	1.8	U	
60-57-1-----	Dieldrin	3.6	U	
72-55-9-----	4,4'-DDE	3.6	U	
72-20-8-----	Endrin	3.6	U	
33213-65-9-----	Endosulfan II	3.6	U	
72-54-8-----	4,4'-DDD	3.6	U	
1031-07-8-----	Endosulfan sulfate	3.6	U	
50-29-3-----	4,4'-DDT	3.6	U	
72-43-5-----	Methoxychlor	18	U	
53494-70-5-----	Endrin ketone	3.6	U	
7421-93-4-----	Endrin aldehyde	3.6	U	
5103-71-9-----	alpha-Chlordane	1.8	U	
5103-74-2-----	gamma-Chlordane	1.8	U	
8001-35-2-----	Toxaphene	180	U	
12674-11-2-----	Aroclor-1016	36	U	
11104-28-2-----	Aroclor-1221	73	U	
11141-16-5-----	Aroclor-1232	36	U	
53469-21-9-----	Aroclor-1242	36	U	
12672-29-6-----	Aroclor-1248	36	U	
11097-69-1-----	Aroclor-1254	36	U	
11096-82-5-----	Aroclor-1260	36	U	V

319-84-6-----	alpha-BHC	1.8	U	J
319-85-7-----	beta-BHC	1.8	U	
319-86-8-----	delta-BHC	1.8	U	
58-89-9-----	gamma-BHC (Lindane)	1.8	U	
76-44-8-----	Heptachlor	1.8	U	
309-00-2-----	Aldrin	1.8	U	
1024-57-3-----	Heptachlor epoxide	1.8	U	
959-98-8-----	Endosulfan I	1.8	U	
60-57-1-----	Dieldrin	3.6	U	
72-55-9-----	4,4'-DDE	3.6	U	
72-20-8-----	Endrin	3.6	U	
33213-65-9-----	Endosulfan II	3.6	U	
72-54-8-----	4,4'-DDD	3.6	U	
1031-07-8-----	Endosulfan sulfate	3.6	U	
50-29-3-----	4,4'-DDT	3.6	U	
72-43-5-----	Methoxychlor	18	U	
53494-70-5-----	Endrin ketone	3.6	U	
7421-93-4-----	Endrin aldehyde	3.6	U	
5103-71-9-----	alpha-Chlordane	1.8	U	
5103-74-2-----	gamma-Chlordane	1.8	U	
8001-35-2-----	Toxaphene	180	U	
12674-11-2-----	Aroclor-1016	36	U	
11104-28-2-----	Aroclor-1221	73	U	
11141-16-5-----	Aroclor-1232	36	U	
53469-21-9-----	Aroclor-1242	36	U	
12672-29-6-----	Aroclor-1248	36	U	
11097-69-1-----	Aroclor-1254	36	U	
11096-82-5-----	Aroclor-1260	36	U	V

122769 VAL

**APPENDIX B-4      Physical-Properties Analyses**

**Colorado**  
**State**  
University

David B. McWhorter  
Engineering Research Center  
Foothills Campus  
Fort Collins, CO 80523  
(303) 491-8666 (Office)  
(303) 491-8224 (FAX)

Department of Agricultural  
and Chemical Engineering  
Fort Collins, Colorado 80523  
(303) 491-5252  
FAX: (303) 491-7369

March 4, 1994

Ms. Bernadette H. Conant  
EPC, Inc.  
63 Great Road  
Maynard, Massachusetts 01754

Dear Bernadette:

This letter transmits the measured values of saturated hydraulic conductivity for 14 samples of porous media taken at the Unifirst property, Woburn, Massachusetts.

The samples were received in glass jars with plastic lids. Upon receipt, the samples were oven-dried at 105°C for a minimum of 24 hours. The samples were placed in the test cell of a falling head permeameter at an average dry bulk density as specified by you in previous correspondence. The cell was evacuated and subsequently was filled very slowly with water. When saturation was complete, the hydraulic conductivity was measured using the falling head technique. All hydraulic conductivity values were measured at 20°C ± 1°C.

Practically all of the samples appeared quite sandy. Many of them contained stones of 1 cm in diameter or greater. None of the large stones were included in the test cell. In all cases, the stones were superimposed on a matrix of much finer-grained material which controlled the hydraulic conductivity. Removing the large stones is not expected to have any effect on the hydraulic conductivity.

Some of the samples, particularly PK 10A, TPK 3A, and TPK 4A, contained a lot of fines. Upon drying, these samples set up almost like cement. It was necessary to recrush them to destroy the aggregates formed during drying. No aggregation was noted prior to drying and it is believed that the recrushed material was very similar to the wet sample collected in the field.

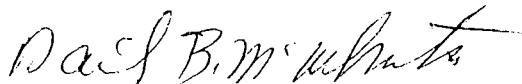
You will note that the bulk density of sample TPK 3A is less than the target density. I was unable to pack this material at the prescribed density, even after several attempts.

B.H. Conant  
March 4, 1994  
Page 2

Probably, it would have been possible to achieve the target density by first moistening the material, but I didn't attempt that procedure. Also, note that the bulk densities for samples PK 11A, PK 12A, TPJ 2A and TPL 2A were not prescribed. The bulk densities reported herein were achieved with about the same degree of effort as used to obtain the prescribed densities of the other samples.

Should you have any questions, please let me know.

Sincerely,



David B. McWhorter  
Professor

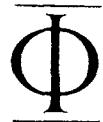
DBM:ejd

enclosure

**FALLING HEAD PERMEAMETER RESULTS**  
**UNIFIRST PROPERTY**

SAMPLE	DRY BULK DENSITY IN TEST CELL g/cm <sup>3</sup>	HYDRAULIC CONDUCTIVITY @ 20°C cm/s
TPK 1A	1.94	6.4 X 10 <sup>-5</sup>
TPK 2A	1.76	5.6 X 10/ <sup>4</sup>
TPK 3A	1.90*	3.5 X 10 <sup>-5</sup>
TPK 4A	1.94	1.4 X 10 <sup>-5</sup>
TPK 5A	1.86	9.3 X 10 <sup>-5</sup>
PK 10A	1.76	2.5 X 10 <sup>-4</sup>
TPJ 1A	1.71	6.6 X 10 <sup>-5</sup>
TPL 1A	1.74	2.3 X 10 <sup>-3</sup>
TPL 3A	1.56	3.3 X 10 <sup>-3</sup>
TPL 4A	1.59	3.9 X 10 <sup>-3</sup>
PK 11A	1.93	3.5 X 10 <sup>-4</sup>
PK 12A	1.85	1.7 X 10 <sup>-4</sup>
TPJ 2A	1.81	6.7 X 10 <sup>-4</sup>
TPL 2A	1.88	6.2 X 10 <sup>-4</sup>

\* Repacked bulk density less than the target value of 2.16 g/cm<sup>3</sup>. Wasn't able to pack to target density.



GEI Consultants, Inc.

January 28, 1994  
Project 94006

1021 Main Street  
Winchester, MA 01890-1970  
617-721-4000

Ms. Bernadette H. Conant  
Environmental Project Control  
63 Great Road  
Maynard, Massachusetts 01754

Dear Ms. Conant:

**Re: Laboratory Test Results  
Wells G & H Site, Woburn, Massachusetts  
- Unconsolidated Deposits RD/RA**

The purpose of this letter is to present the results of the laboratory tests performed on the soil samples delivered to GEI Consultants, Inc. (GEI) on December 23, 1993.

#### **Authorization**

Authorization to perform this work was received in the form of letter signed by Ms. Greta Gustie dated December 24, 1993.

#### **Test Program**

An initial test program was described in the authorization to work letter. Additional work was assigned by Ms. Bernadette Conant on January 25, 1994.

#### **Samples**

Samples were received in the form of "grab" samples stored in wide mouth jars from all locations and "undisturbed" samples contained in sealed brass rings from selected locations.

As requested by Ms. Bernadette Conant, the samples with a TPI designation on the sample containers have been listed within this report and marked on the test sheets with a TPL designation.

## Test Procedures

### Sample Log in and Screening

The "grab" jar samples were initially screened using jar headspace screening procedures (Massachusetts Department of Environmental Protection [DEP] Procedure WSC-400-89 (8/90)) with an organic vapor meter.

### Moisture Content

Moisture contents were obtained on the "undisturbed" ring samples when available, otherwise they were from the "grab" jar samples.

Moisture content was determined in accordance with ASTM Method D2216 by drying the sample in a 110°C oven to a constant weight. Moisture contents are expressed as the percentage of water weight to the dry weight of the specimen.

### Grain Size Distribution

Grain Size Distributions were determined for the "grab" jar samples in accordance with ASTM Method D422. The distribution of particle sizes larger than 75 µm was determined by sieving while the distribution of particle sizes smaller than 75 µm was determined by a sedimentation process using a hydrometer. The distribution is presented in terms of percent of the dry mass of the complete sample that is finer than a given size.

### Sample Density

The sample densities were determined for the "undisturbed" ring samples. The tests were performed along the guidelines of ASTM D2937 item 7. The mass of the covered brass ring with the soil was measured first, the soil was then removed from the ring, and the weight of the ring and covers, without soil, then measured. The water content of the soil removed from the ring was then determined. The ring height and diameter were then measured and the volume calculated. The total density (wet density) of the sample was calculated from the mass of soil and water in the sealed ring and the volume of the ring. The dry density was determined from the total density and the measured water content.

The density calculations are based on the assumption that the samples were trimmed flush with the ring top and bottom and sealed in the field, with no subsequent loss of material.

Specific Gravity

The specific gravity of selected "grab" jar samples was determined on the material smaller than the No. 4 sieve (4.75 mm) according to ASTM D854 by means of a pycnometer on an oven dried sample of soil.

**Test Results**

The results of the test program are reported in Appendix A. Sample screening measurements, water content, sample density (total and dry), and specific gravity results are presented in Table 1. Grain size distributions are presented graphically on individual test sheets and the results are summarized in Table 1.

**Limitations**

Our professional services for this project have been performed in accordance with generally accepted engineering practices; no other warranty, expressed or implied, is made.

**Reference**

- 1) **ASTM Annual Book of Standards (1993). Vol. 04.08.**

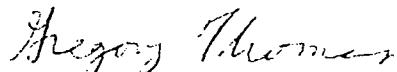
**Sample Disposition**

The remaining samples and sample containers are being held at GEI for you to retrieve. Please contact me to make arrangements for this material. If we do not receive other instructions from you within 30 days, this material will be returned to you by the means we deem most suitable and you will be billed for the costs incurred.

If you have any questions concerning the test results reported in this letter, please call me.

Sincerely yours,

GEI CONSULTANTS, INC.



Gregory Thomas  
Laboratory Director

GT:jkc  
Attachments

## **APPENDIX A**

### **Test Results**

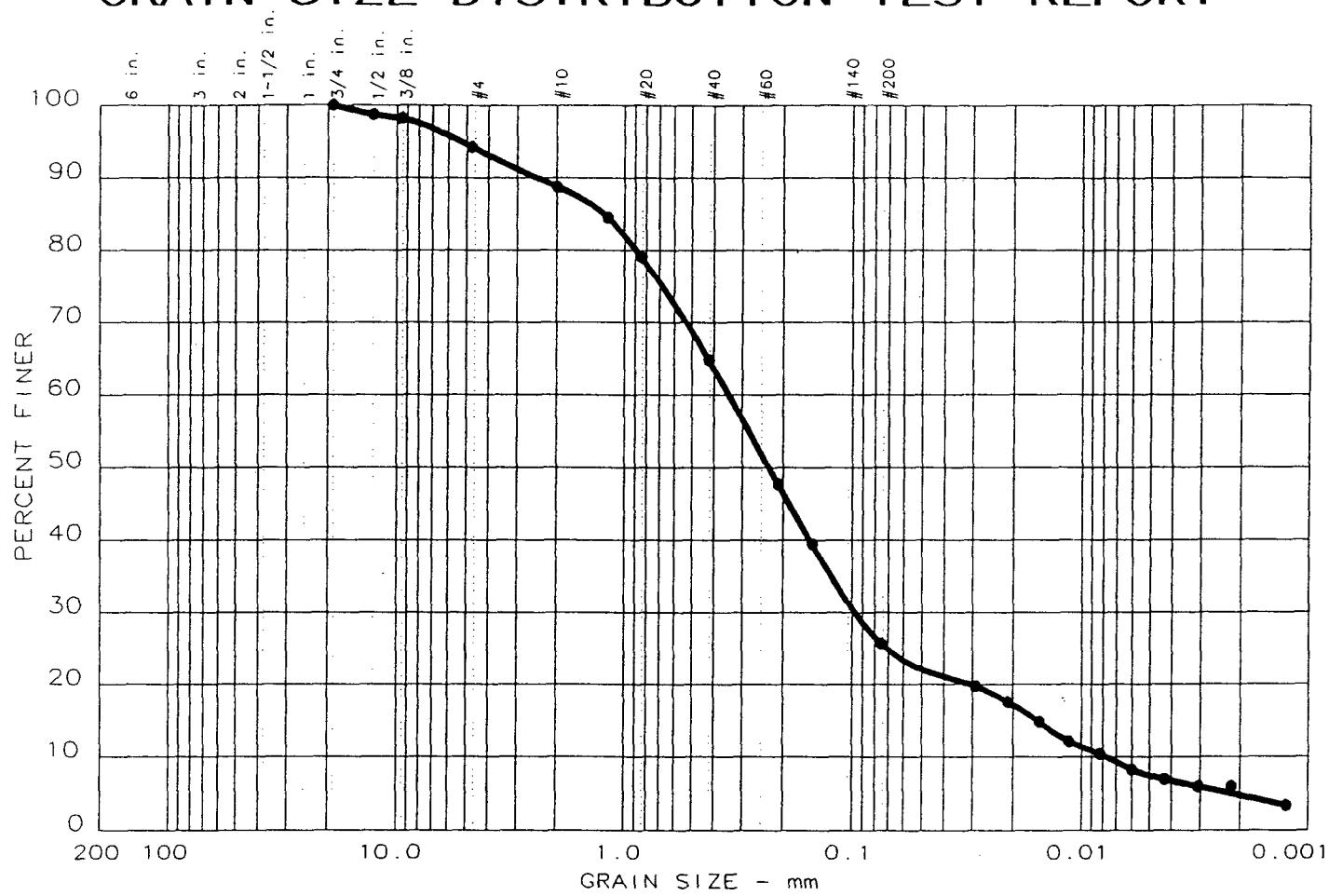
TABLE 1 - TEST SUMMARY  
Wells G & H Site, Woburn, Massachusetts  
Unconsolidated Deposits RD/RA

Sample Number	Sample Screening ppm	Water Content %	Total Density gm/cm <sup>3</sup>	Dry Density gm/cm <sup>3</sup>	Specific Gravity	Grain Size Summary*		
						Gravel <sup>1</sup> %	Sand <sup>2</sup> %	Fines <sup>3</sup> %
C284A	0	6.5				5.7	68.6	25.7
PK10A	0	7.5	1.89	1.76	2.67	1.6	81.9	16.5
PK11A	3	3.0				36.2	57.1	6.7
PK12A	5	5.6				23.9	60.5	15.6
TPJ1A	0	8.8	1.87	1.72	2.68	0.1	72.9	27.0
TPJ2A	0	3.7				56.7	37.5	5.8
TPJ3A	0	10.2				1.3	89.0	9.7
TPK1A	2	5.5	2.05	1.94		26.6	58.8	14.6
TPK2A	0	7.3	1.89	1.76		7.1	68.9	24.0
TPK3A	0	8.2	2.34	2.17	2.69	4.4	61.6	34.0
TPK4A	2	8.7	2.11	1.94		15.6	61.1	23.3
TPK5A	0	7.1	2.00	1.86		0.6	82.4	17.0
TPK6A	0	9.5	2.17	1.99	2.67	5.7	63.0	31.3
TPK7A	0	6.5	1.92	1.80		2.1	80.4	17.5
TPK8A	0	7.3	1.69	1.57		12.5	69.3	18.2
TPK9A	0	8.3	1.97	1.82		8.9	71.3	19.8
TPL1A	6	5.6	1.84	1.74		8.3	74.2	17.5
TPL2A	0	4.2				15.9	66.3	17.8
TPL3A	0	6.0	1.65	1.56	2.68	0.7	75.2	24.1
TPL4A	0	5.5	1.68	1.59		20.7	59.4	19.9

Notes: \* See enclosed Grain Size Distribution.

- 1) Gravel>4.75mm.
- 2) 4.75mm>Sand>0.074mm.
- 3) 0.074mm>Fines.

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	% +3"	% GRAVEL	% SAND	% FINES
• 1	0.0	5.7	68.6	25.7

LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
•		1.23	0.34	0.23	0.097	0.0155	0.0077	3.55	44.7

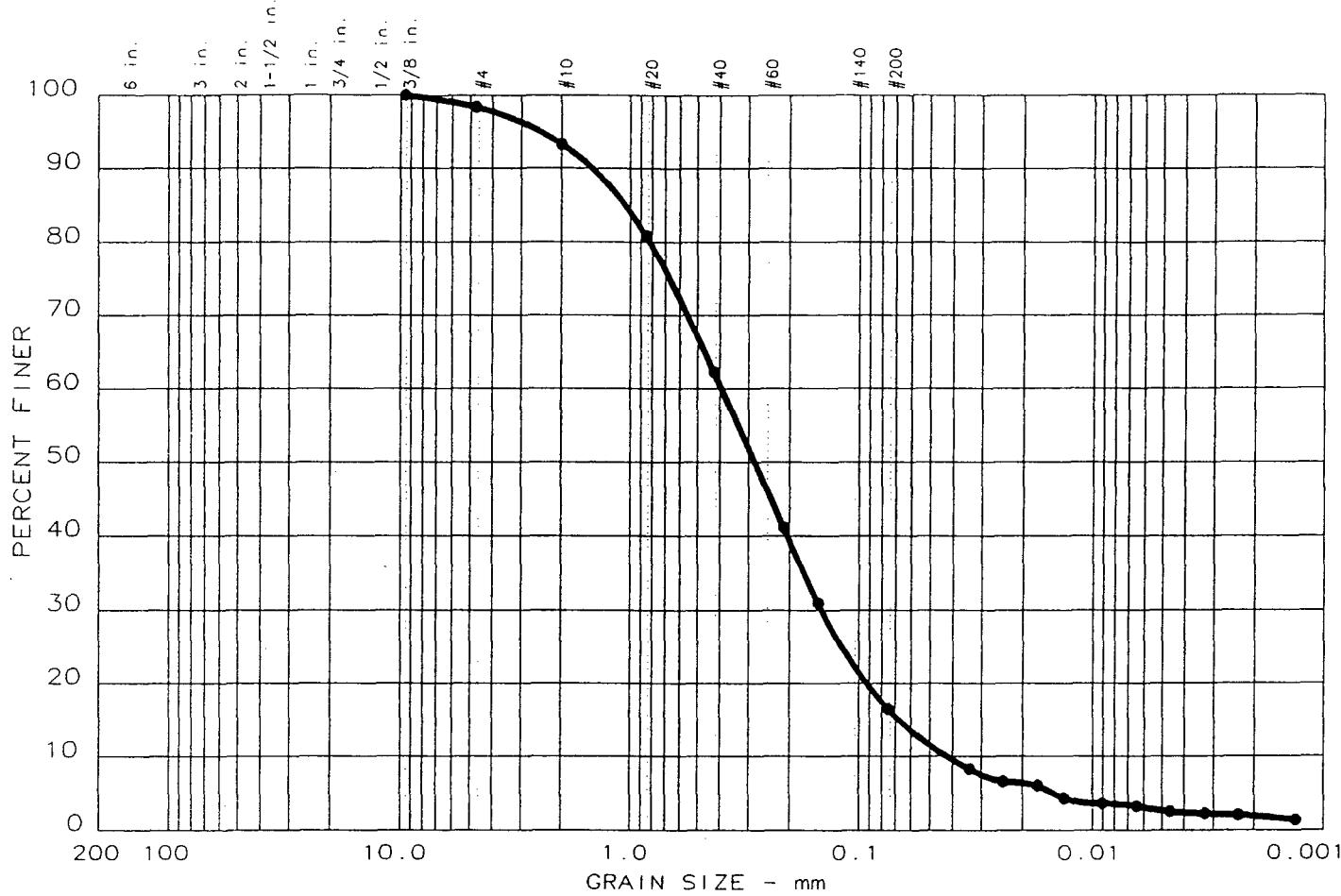
MATERIAL DESCRIPTION	USCS	AASHTO
• Silty Sand	SM	

Project No.: 94006	Remarks:
Project: Wells H & G Site	
• Location: Sample No. C284A	

Date: January 10, 1994	GRAIN SIZE DISTRIBUTION TEST REPORT
	GEI CONSULTANTS, INC., WINCHESTER, MA

Figure No. 1

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	% +3"	% GRAVEL	% SAND			% FINES		
• 2	0.0	1.6	81.9			16.5		

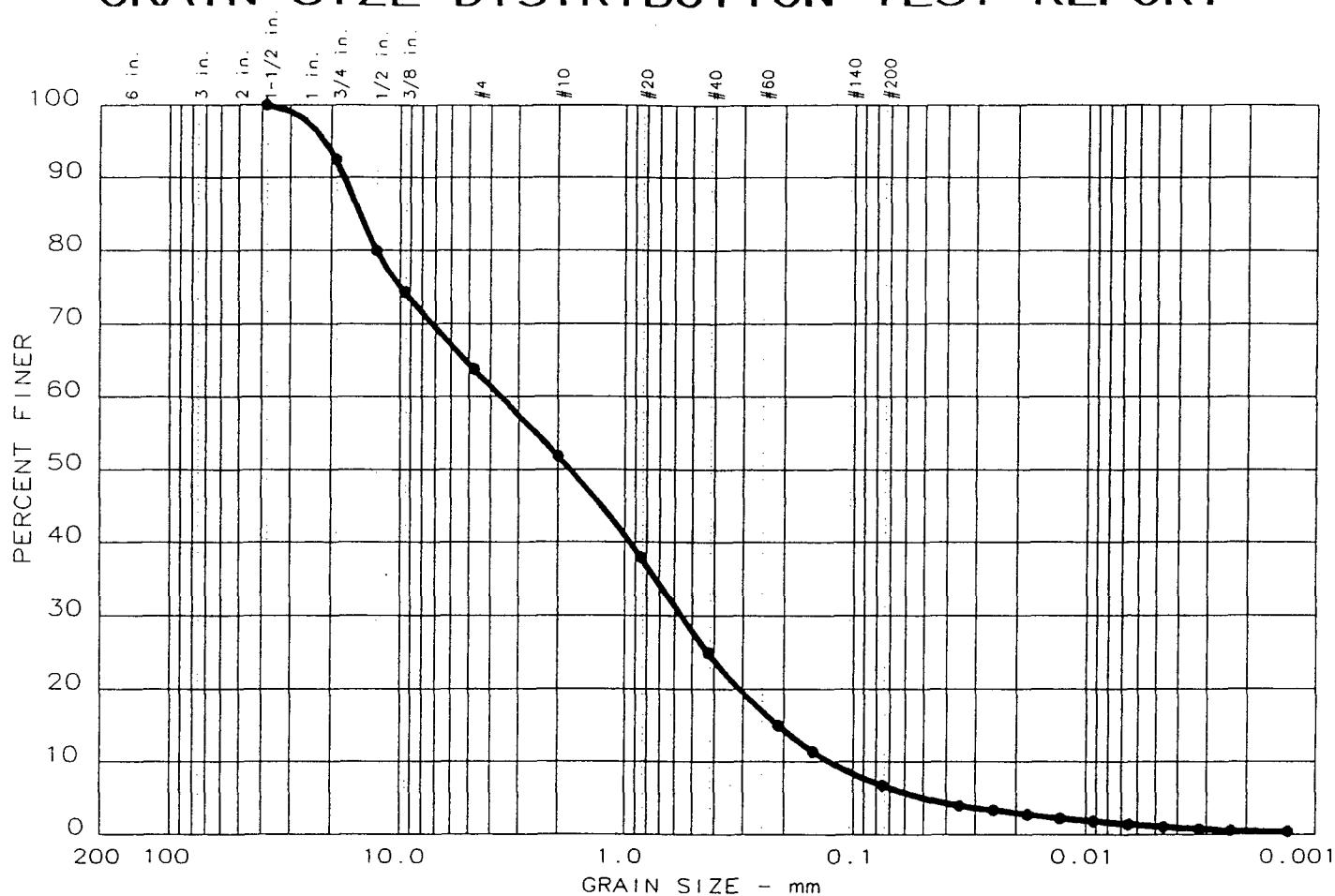
LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
•		1.05	0.39	0.28	0.144	0.0668	0.0421	1.26	9.3

MATERIAL DESCRIPTION	USCS	AASHTO
• Silty Sand	SM	

Project No.: 94006	Remarks:
Project: Wells G & H Site	
• Location: Sample PK10A	
Date: January 20, 1994	
GRAIN SIZE DISTRIBUTION TEST REPORT	
GEI CONSULTANTS, INC., WINCHESTER, MA	

Figure No. 2

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	% +3"	% GRAVEL	% SAND		% FINES	
● 3	0.0	36.2	57.1		6.7	

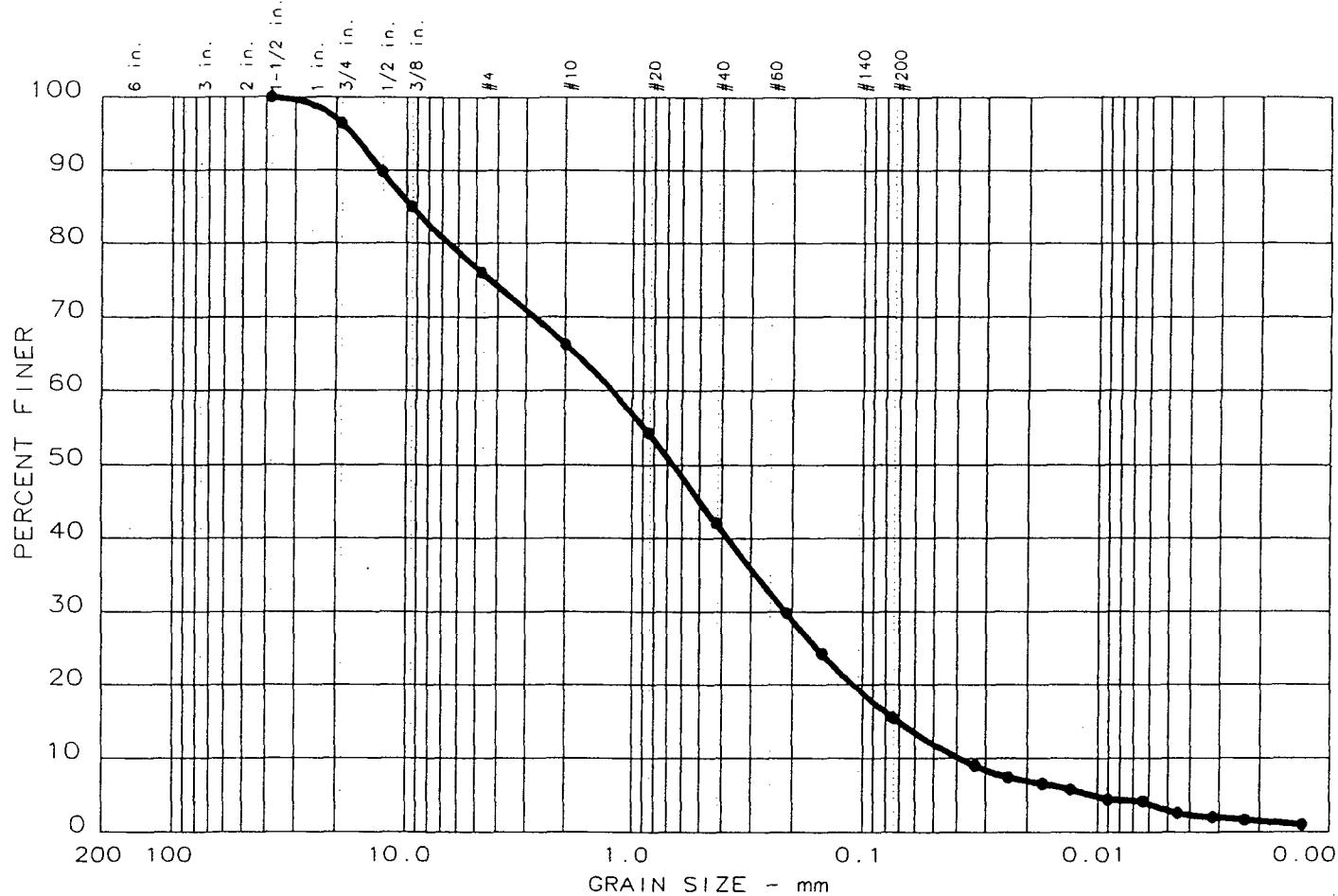
LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
●		14.96	3.59	1.76	0.556	0.2089	0.1259	0.68	28.5

MATERIAL DESCRIPTION	USCS	AASHTO
● Narrowly graded Sand with silt and gravel	SP-SM	

Project No.: 94006	Remarks:
Project: Wells G & H Site	
● Location: Sample PK11A	
Date: January 20, 1994	
GRAIN SIZE DISTRIBUTION TEST REPORT	
GEI CONSULTANTS, INC., WINCHESTER, MA	

Figure No. 3

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	% +3"	% GRAVEL	% SAND	% FINES
• 4	0.0	23.9	60.5	15.6

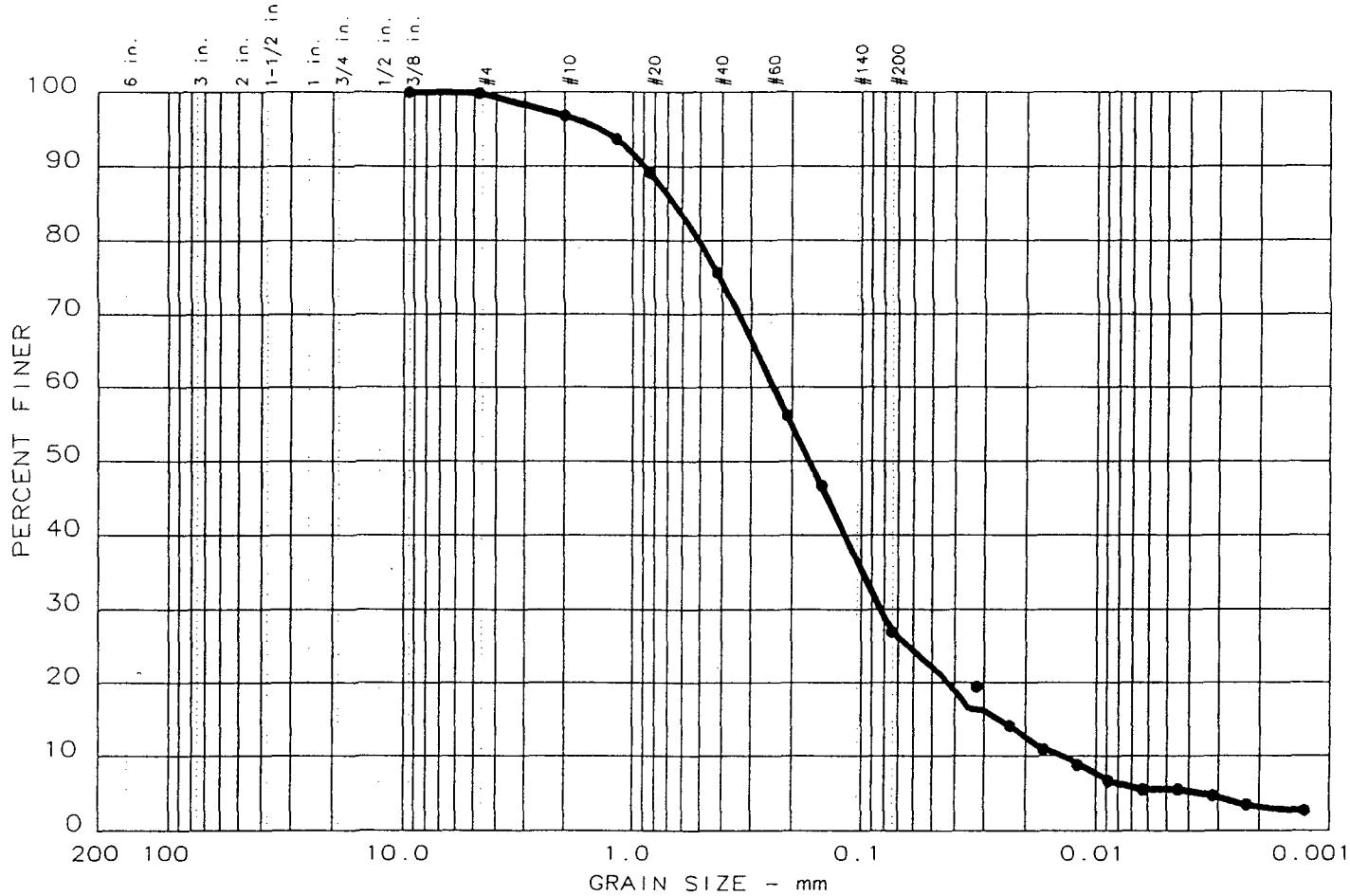
LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
•		9.44	.1.23	0.65	0.211	0.0700	0.0385	0.94	32.0

MATERIAL DESCRIPTION	USCS	AASHTO
• Silty Sand with gravel	SM	

Project No.: 94006	Remarks:
Project: Wells G & H Site	
• Location: Sample PK12A	
Date: January 20, 1994	
GRAIN SIZE DISTRIBUTION TEST REPORT	
GEI CONSULTANTS, INC., WINCHESTER, MA	

Figure No. 4

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	% +3"	% GRAVEL	% SAND		% FINES	
• 5	0.0	0.1	72.9		27.0	

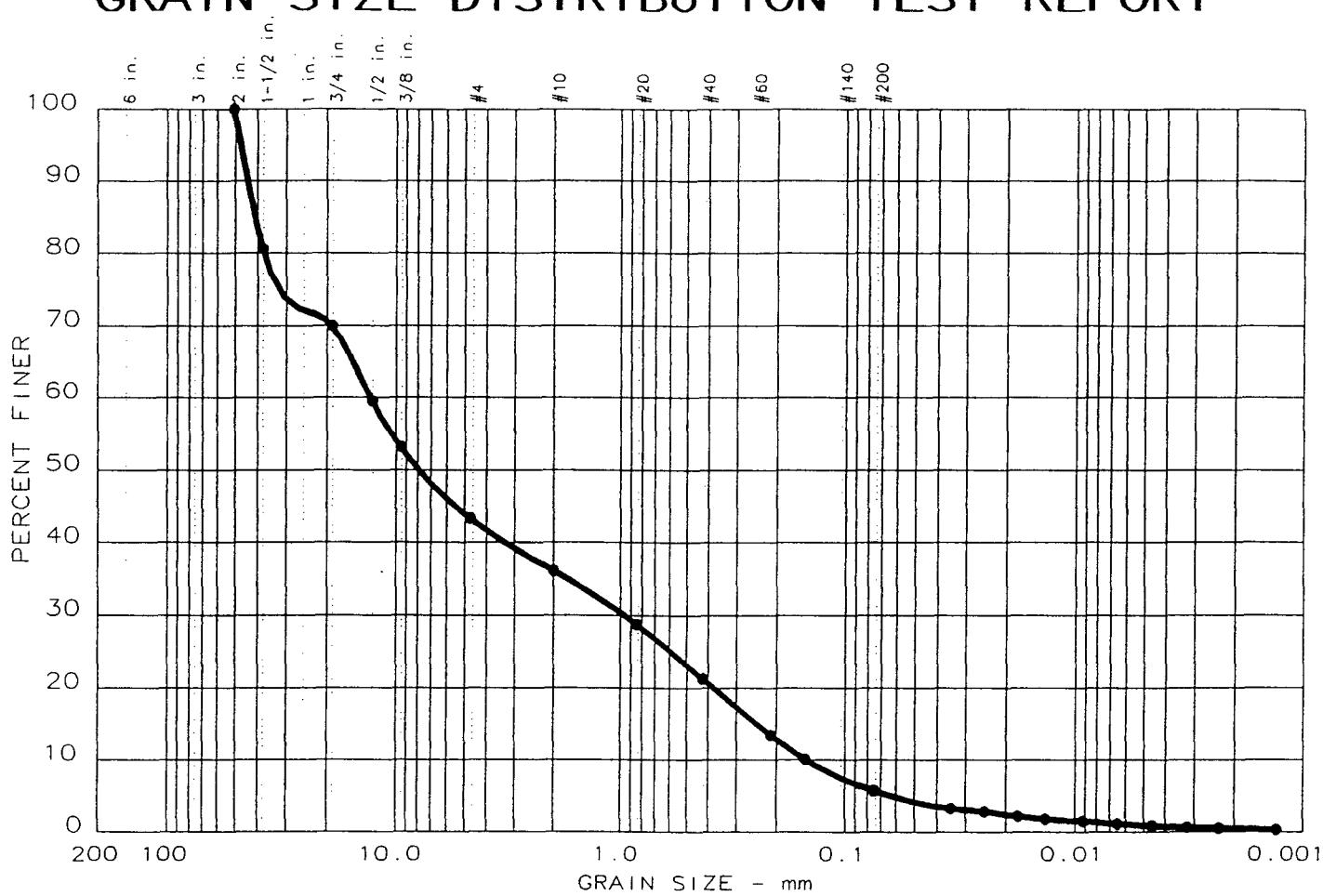
LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
•		0.65	0.24	0.17	0.086	0.0250			

MATERIAL DESCRIPTION	USCS	AASHTO
• Silty Sand	SM	

Project No.: 94006 Project: Wells H & G Site • Location: Sample No. TPJ1A  Date: January 10, 1994	Remarks:
GRAIN SIZE DISTRIBUTION TEST REPORT GEI CONSULTANTS, INC., WINCHESTER, MA	

Figure No. 5

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	% +3"	% GRAVEL	% SAND	% FINE
• 6	0.0	56.7	37.5	5.8

LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
•		41.16	12.87	7.84	0.965	0.2424	0.1477	0.49	87.1

## MATERIAL DESCRIPTION

- Narrowly graded Gravel with silt and sand

USCS

AASHTO

GP-GM

Project No.: 94006

Project: Wells G & H Site

- Location: Sample TPJ2A

Remarks:

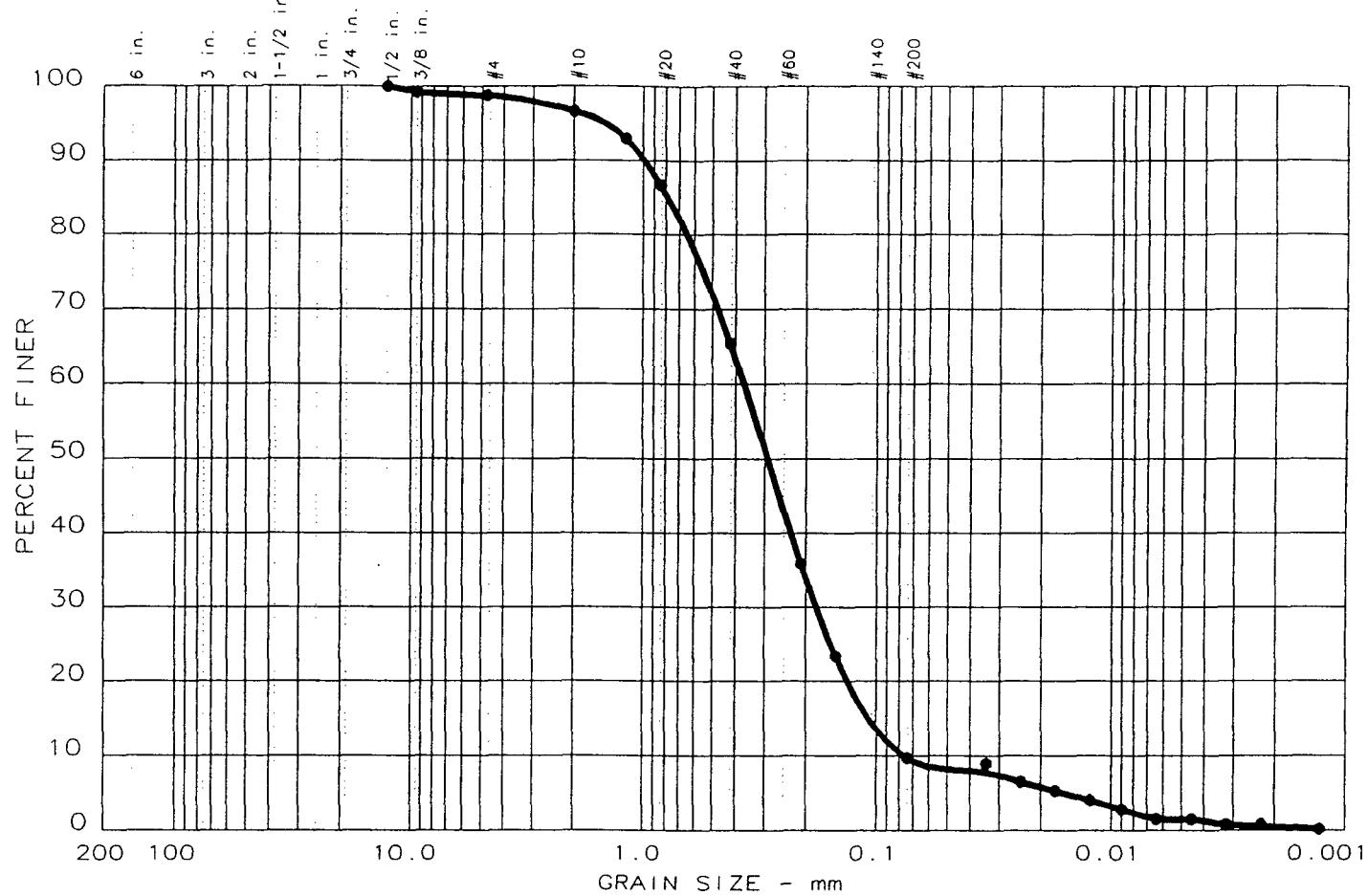
Date: January 20, 1994

GRAIN SIZE DISTRIBUTION TEST REPORT

GEI CONSULTANTS, INC., WINCHESTER, MA

Figure No. 6

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	% +3"	% GRAVEL	% SAND		% FINES	
● 7	0.0	1.3	89.0		9.7	

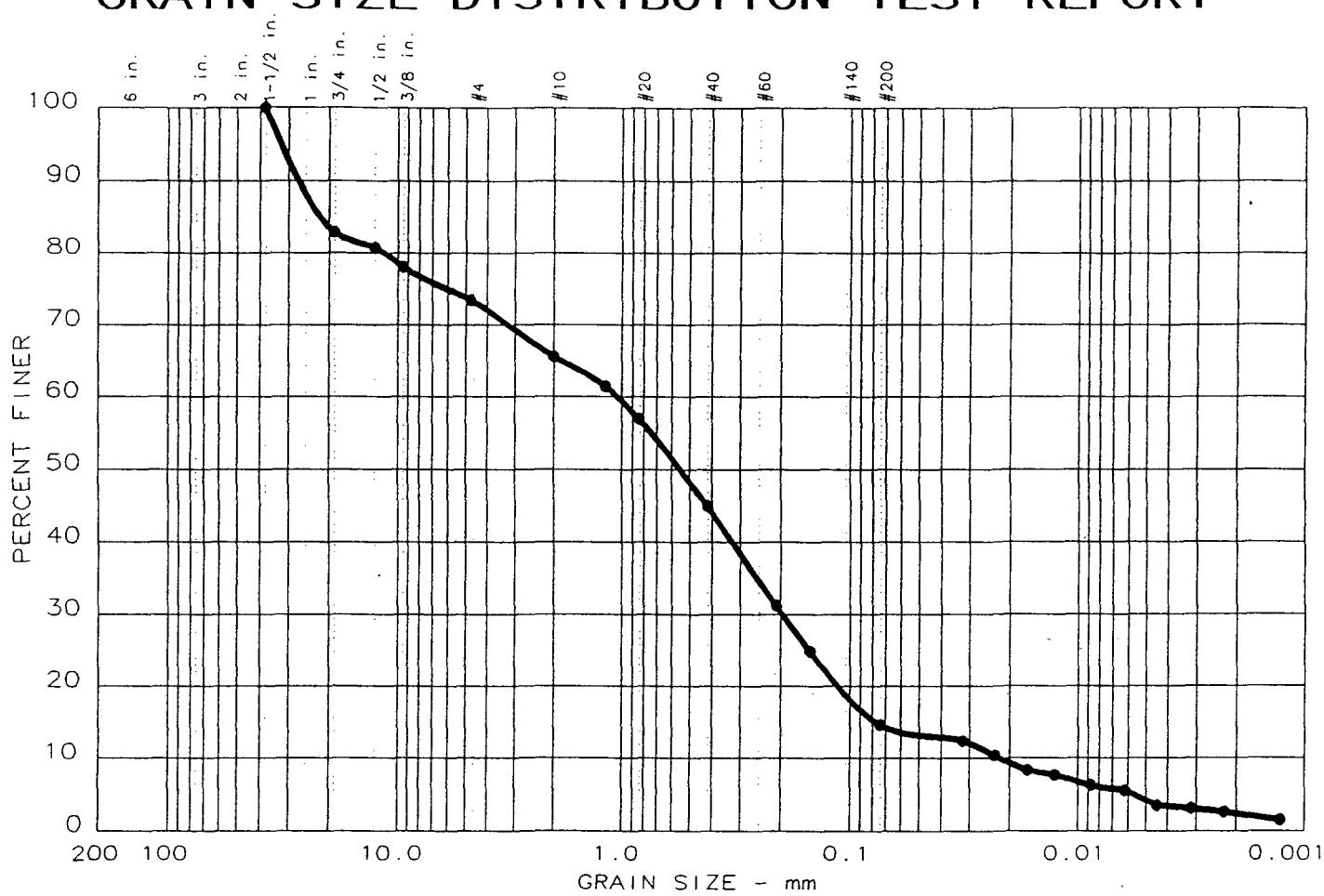
LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
●		0.78	0.37	0.29	0.180	0.0965	0.0749	1.17	4.9

MATERIAL DESCRIPTION	USCS	AASHTO
● Narrowly graded Sand with silt	SP-SM	

Project No.: 94006	Remarks:
Project: Wells H & G Site	
● Location: Sample No. TPJ3A	
Date: January 10, 1994	
GRAIN SIZE DISTRIBUTION TEST REPORT	
GEI CONSULTANTS, INC., WINCHESTER, MA	

Figure No. 7

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	% +3"	% GRAVEL	% SAND		% FINES	
• 8	0.0	26.6	58.8		14.6	

LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
•		21.88	1.04	0.55	0.195	0.0767	0.0219	1.68	47.3

MATERIAL DESCRIPTION	USCS	AASHTO
• Silty Sand	SM	

Project No.: 94006  
 Project: Wells H & G Site  
 • Location: Sample No. TPK1A

Remarks:

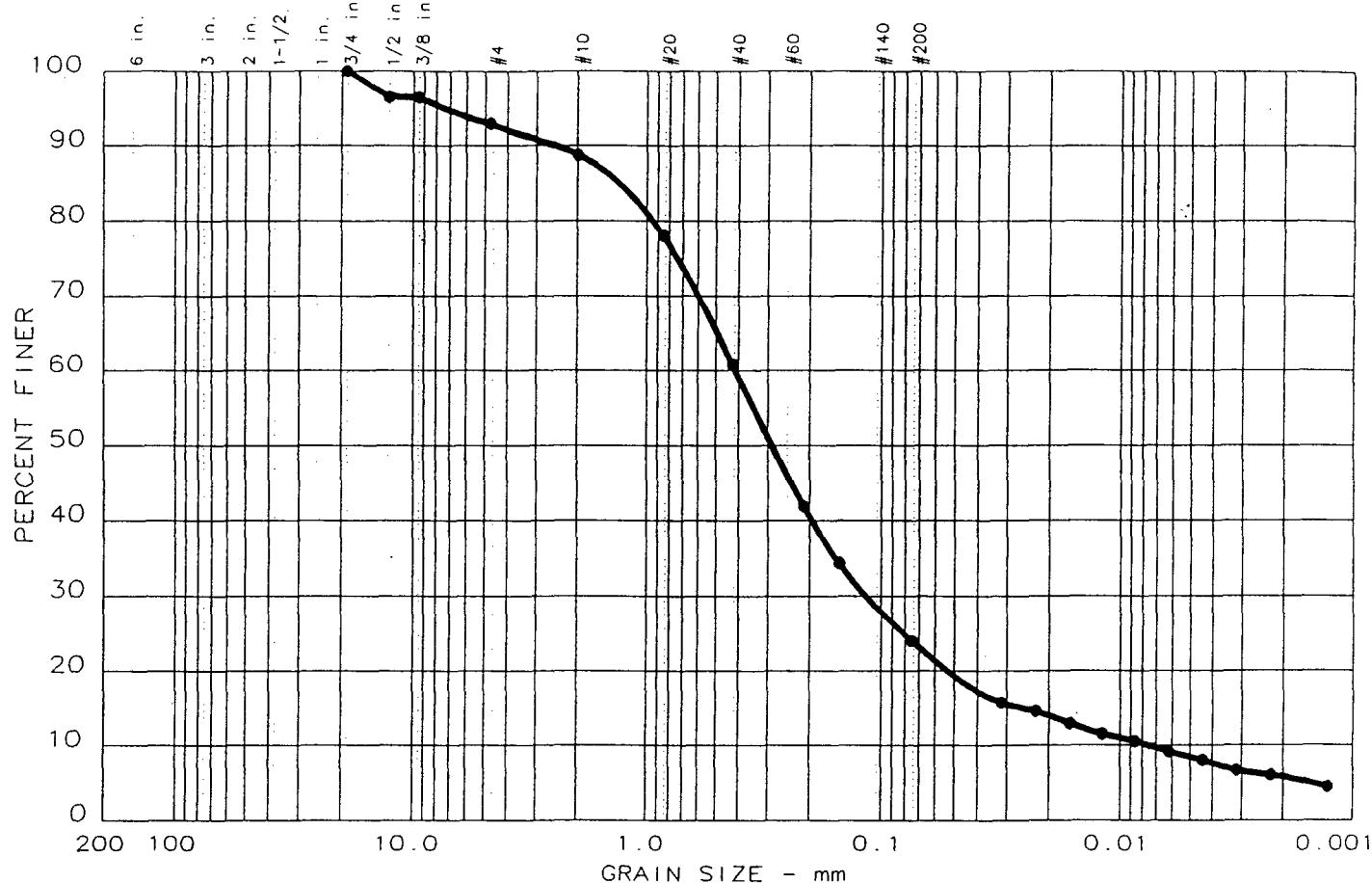
Date: January 10, 1994

GRAIN SIZE DISTRIBUTION TEST REPORT

GEI CONSULTANTS, INC., WINCHESTER, MA

Figure No. 8

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	% +3"	% GRAVEL	% SAND	% FINES
• 9	0.0	7.1	68.9	24.0

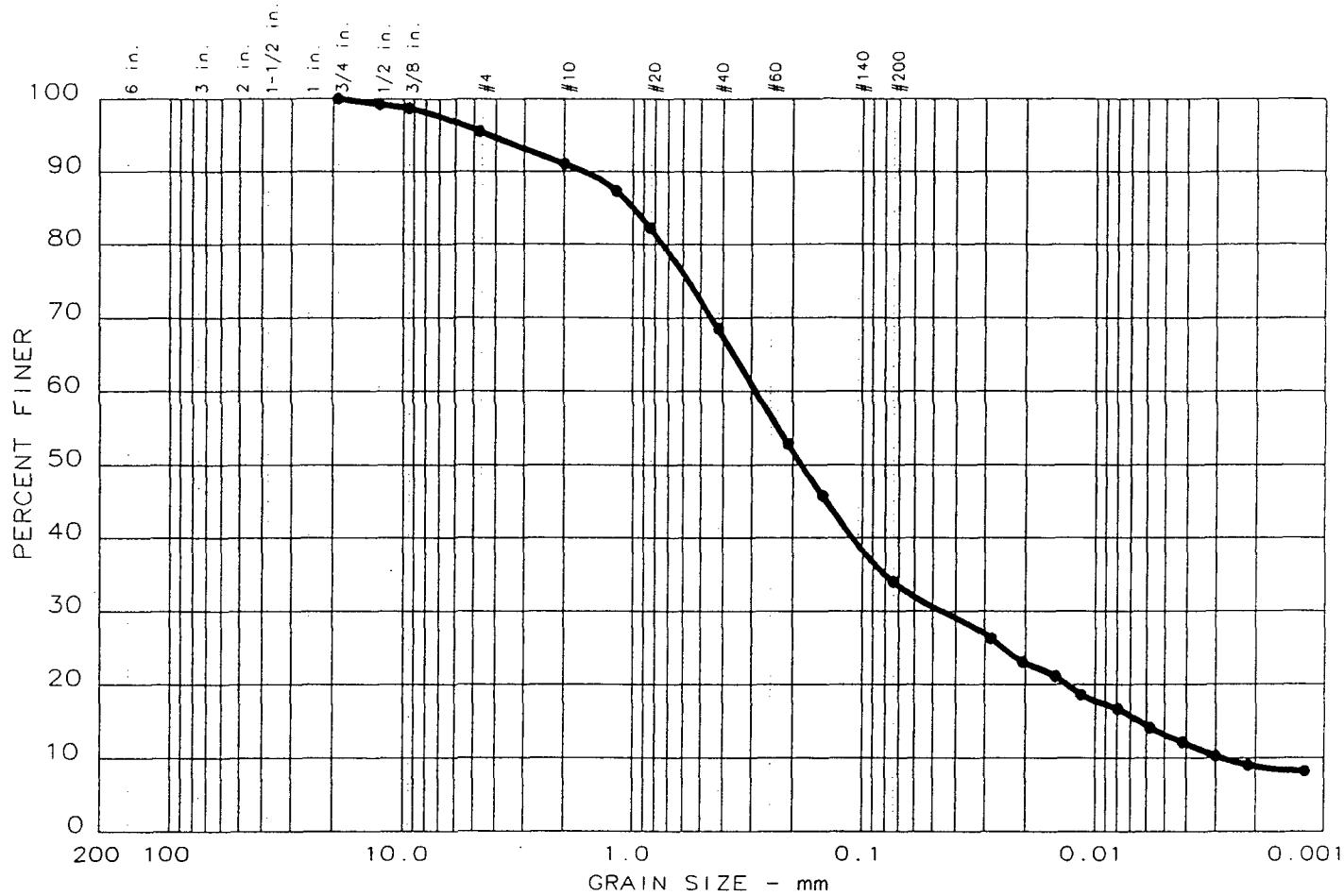
LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
•		1.32	0.41	0.29	0.115	0.0251	0.0075	4.27	55.0

MATERIAL DESCRIPTION				USCS	AASHTO
• Silty Sand				SM	

Project No.: 94006	Remarks:
Project: Wells G & H Site	
• Location: Sample TPK2A	
Date: January 20, 1994	
GRAIN SIZE DISTRIBUTION TEST REPORT	
GEI CONSULTANTS, INC., WINCHESTER, MA	

Figure No. 9

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	% +3"	% GRAVEL	% SAND			% FINES		
● 10	0.0	4.4	61.6			34.0		

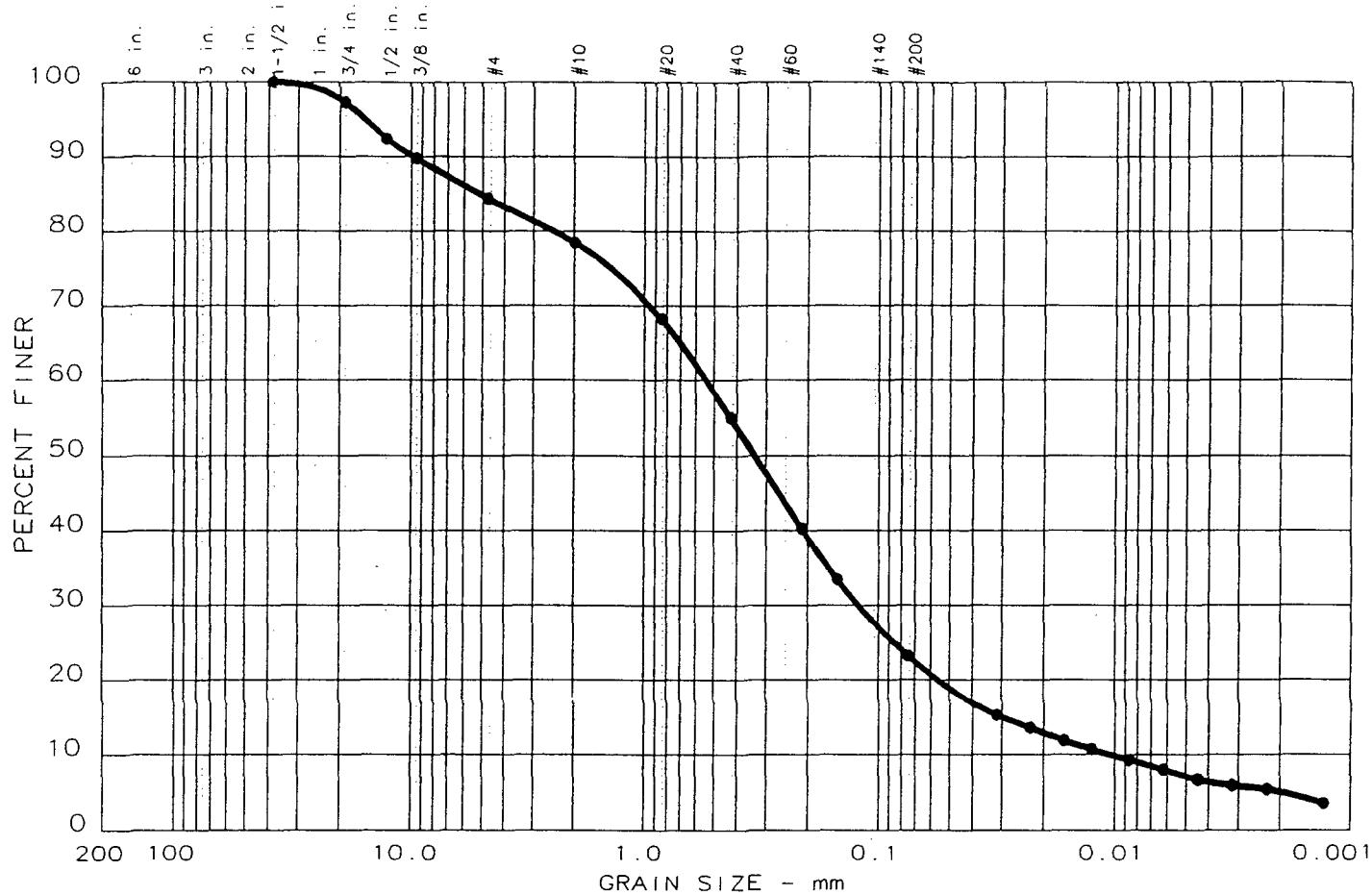
LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
●		0.99	0.29	0.18	0.046	0.0064	0.0028	2.62	102.6

MATERIAL DESCRIPTION			USCS	AASHTO
● Silty Sand			SM	

Project No.: 94006 Project: Wells H & G Site ● Location: Sample No. TPK3A  Date: January 10, 1994	Remarks:
GRAIN SIZE DISTRIBUTION TEST REPORT GEI CONSULTANTS, INC., WINCHESTER, MA	

Figure No. 10

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	% +3"	% GRAVEL		% SAND			% FINES		
• 11	0.0	15.6		61.1			23.3		

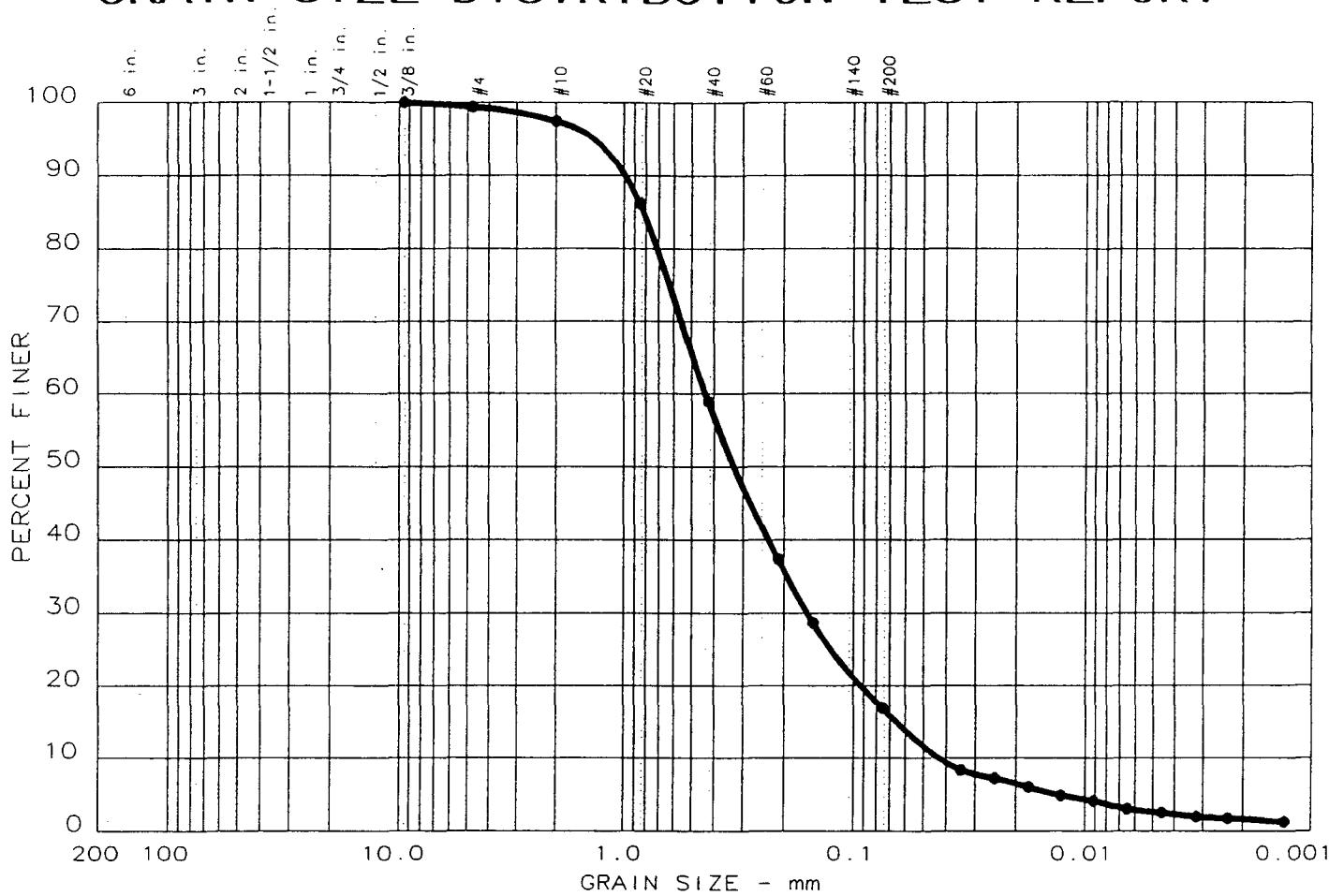
LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
•		5.19	0.54	0.33	0.122	0.0299	0.0099	2.79	54.3

MATERIAL DESCRIPTION	USCS	AASHTO
• Silty Sand with gravel	SM	

Project No.: 94006 Project: Wells G & H Site • Location: Sample TPK4A  Date: January 20, 1994	Remarks:  GRAIN SIZE DISTRIBUTION TEST REPORT GEI CONSULTANTS, INC., WINCHESTER, MA
---	--

Figure No. 11

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	% +3"	% GRAVEL	% SAND		% FINES	
● 12	0.0	0.6	82.4		17.0	

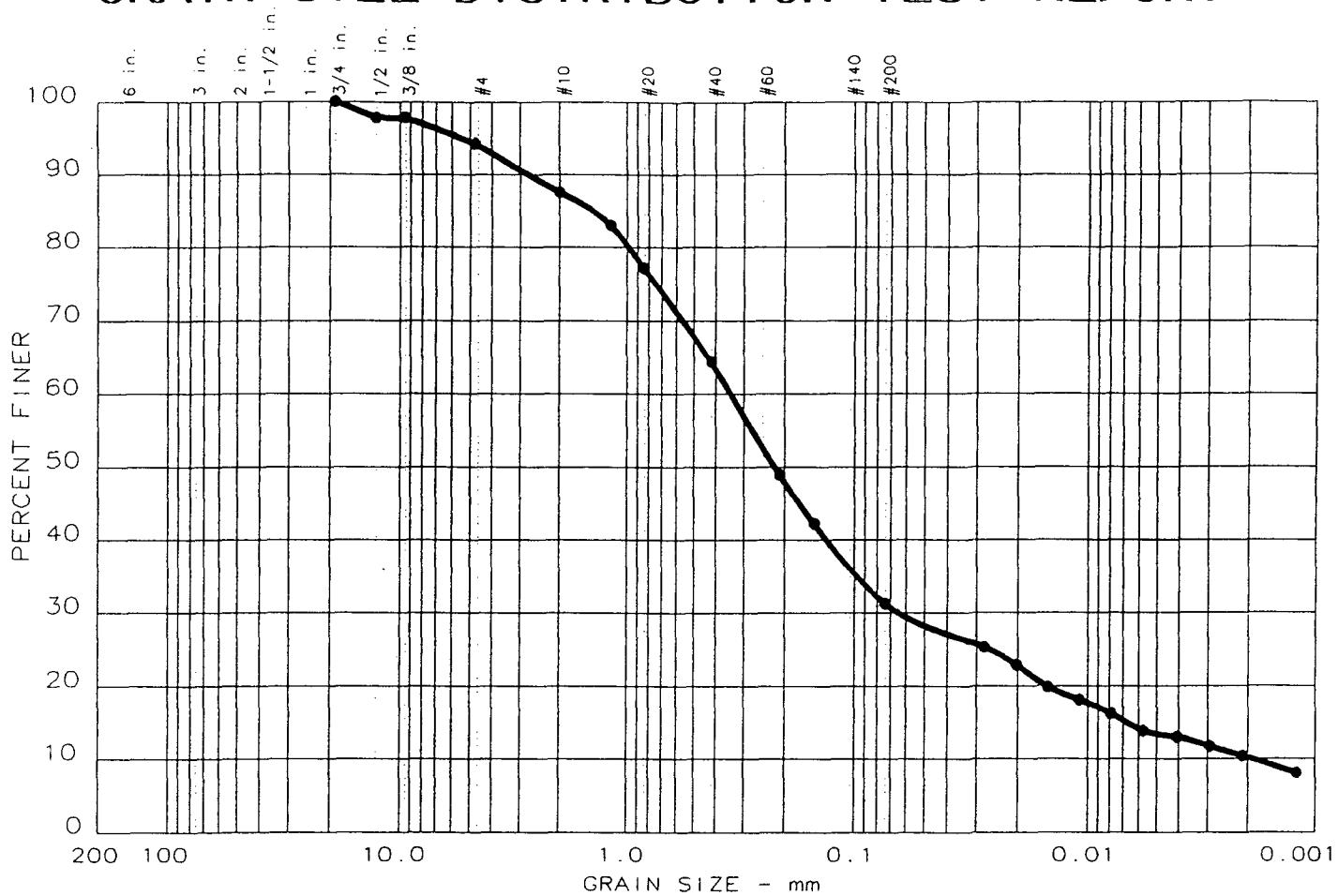
LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
●		0.82	0.44	0.33	0.158	0.0646	0.0427	1.35	10.2

MATERIAL DESCRIPTION				USCS	AASHTO
● Silty Sand				SM	

Project No.: 94006	Remarks:
Project: Wells G & H Site	
● Location: Sample TPK5A	
Date: January 20, 1994	
GRAIN SIZE DISTRIBUTION TEST REPORT	
GEI CONSULTANTS, INC., WINCHESTER, MA	

Figure No. 12

# GRAIN SIZE DISTRIBUTION TEST REPORT



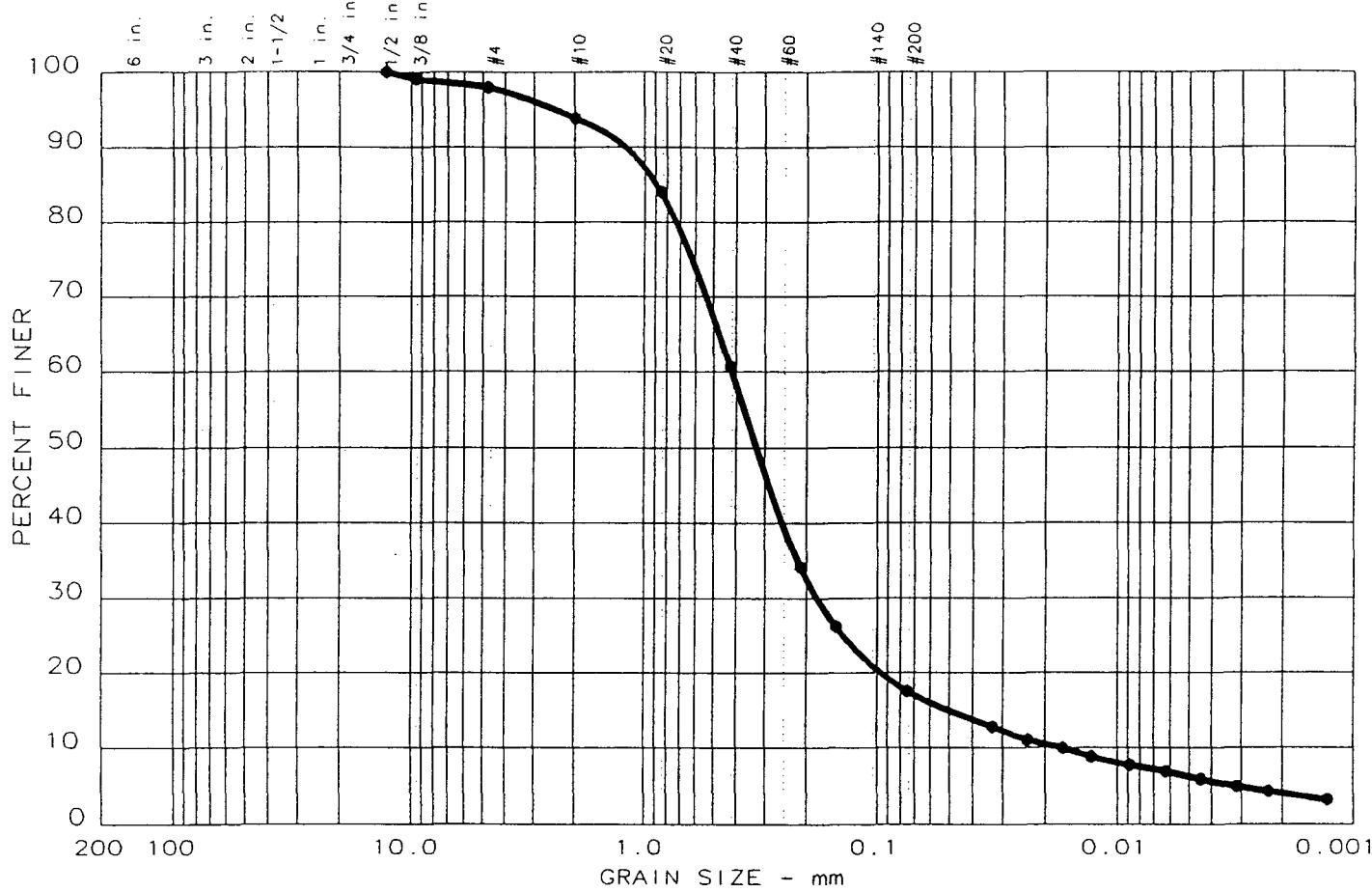
Test	% +3"	% GRAVEL	% SAND		% FINES	
• 13	0.0	5.7	63.0		31.3	

LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
•		1.41	0.34	0.22	0.064	0.0068	0.0019	6.45	182.2

MATERIAL DESCRIPTION		USCS	AASHTO
• Silty Sand		SM	

Project No.: 94006	Remarks:
Project: Wells H & G Site	
• Location: Sample No. TPK6A	
Date: January 10, 1994	

# GRAIN SIZE DISTRIBUTION TEST REPORT



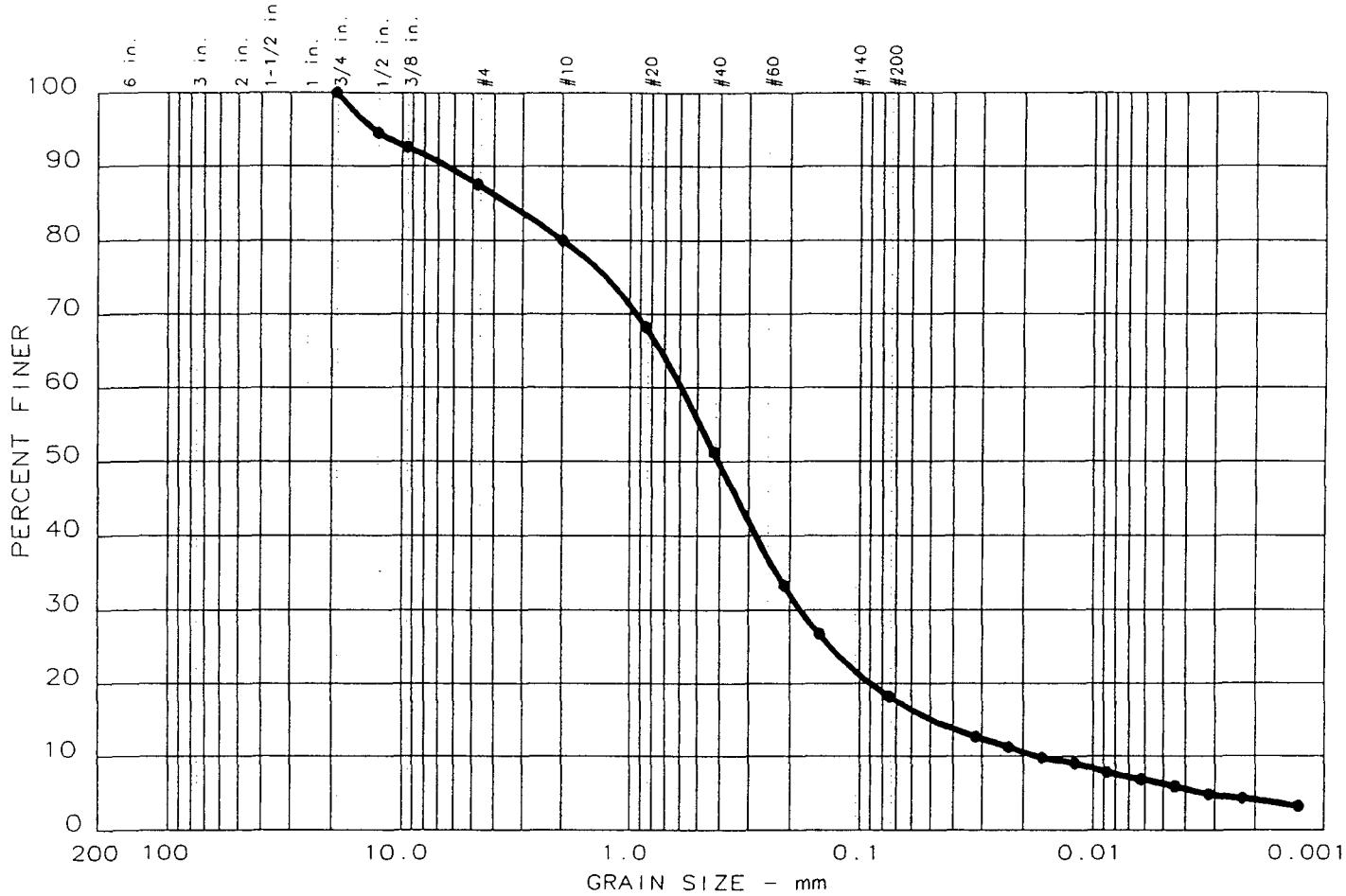
Test	% +3"	% GRAVEL	% SAND			% FINES		
• 14	0.0	2.1			80.4			17.5

LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
•		0.88	0.42	0.33	0.180	0.0501	0.0170	4.57	24.5

MATERIAL DESCRIPTION				USCS	AASHTO
• Silty Sand				SM	

Project No.: 94006	Remarks:
Project: Wells G & H Site	
• Location: Sample TPK7A	
Date: January 20, 1994	
GRAIN SIZE DISTRIBUTION TEST REPORT	
GEI CONSULTANTS, INC., WINCHESTER, MA	

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	% +3"	% GRAVEL	% SAND		% FINES	
• 15	0.0	12.5	69.3		18.2	

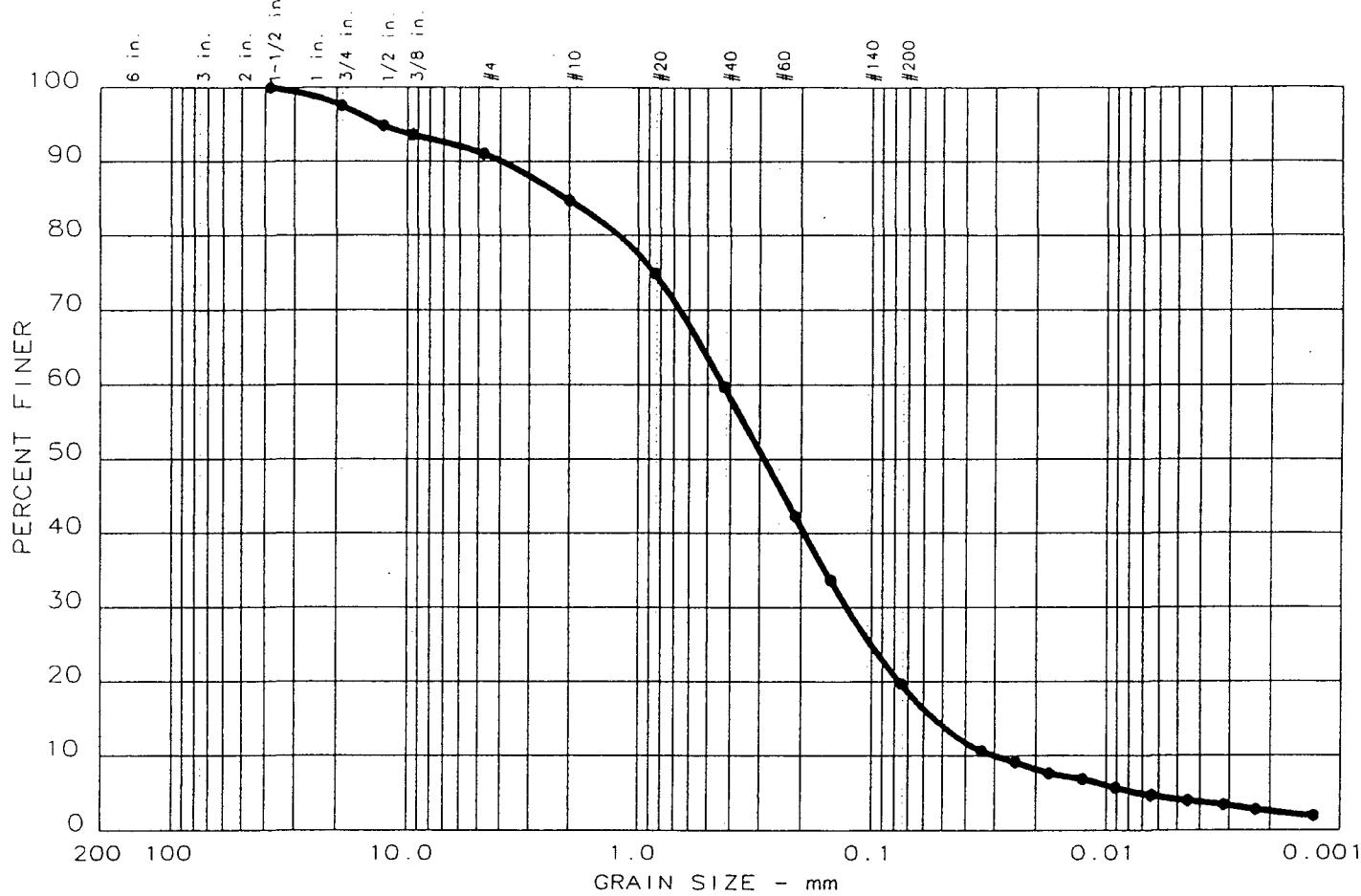
LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
•		3.47	0.59	0.41	0.179	0.0494	0.0175	3.12	33.6

MATERIAL DESCRIPTION		USCS	AASHTO
• Silty Sand		SM	

Project No.: 94006	Remarks:
Project: Wells G & H Site	
• Location: Sample TPK8A	
Date: January 20, 1994	
GRAIN SIZE DISTRIBUTION TEST REPORT	
GEI CONSULTANTS, INC., WINCHESTER, MA	

Figure No. 15

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	% +3"	% GRAVEL	% SAND		% FINES	
● 16	0.0	8.9	71.3		19.8	

LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
●		2.07	0.43	0.29	0.127	0.0541	0.0301	1.25	14.2

MATERIAL DESCRIPTION				USCS	AASHTO
● Silty Sand				SM	

Project No.: 94006  
 Project: Wells G & H Site  
 ● Location: Sample TPK9A

Date: January 20, 1994

Remarks:

GRAIN SIZE DISTRIBUTION TEST REPORT  
 GEI CONSULTANTS, INC., WINCHESTER, MA

Figure No. 16

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	% +3"	% GRAVEL	% SAND		% FINES
• 17	0.0	8.3	74.2		17.5

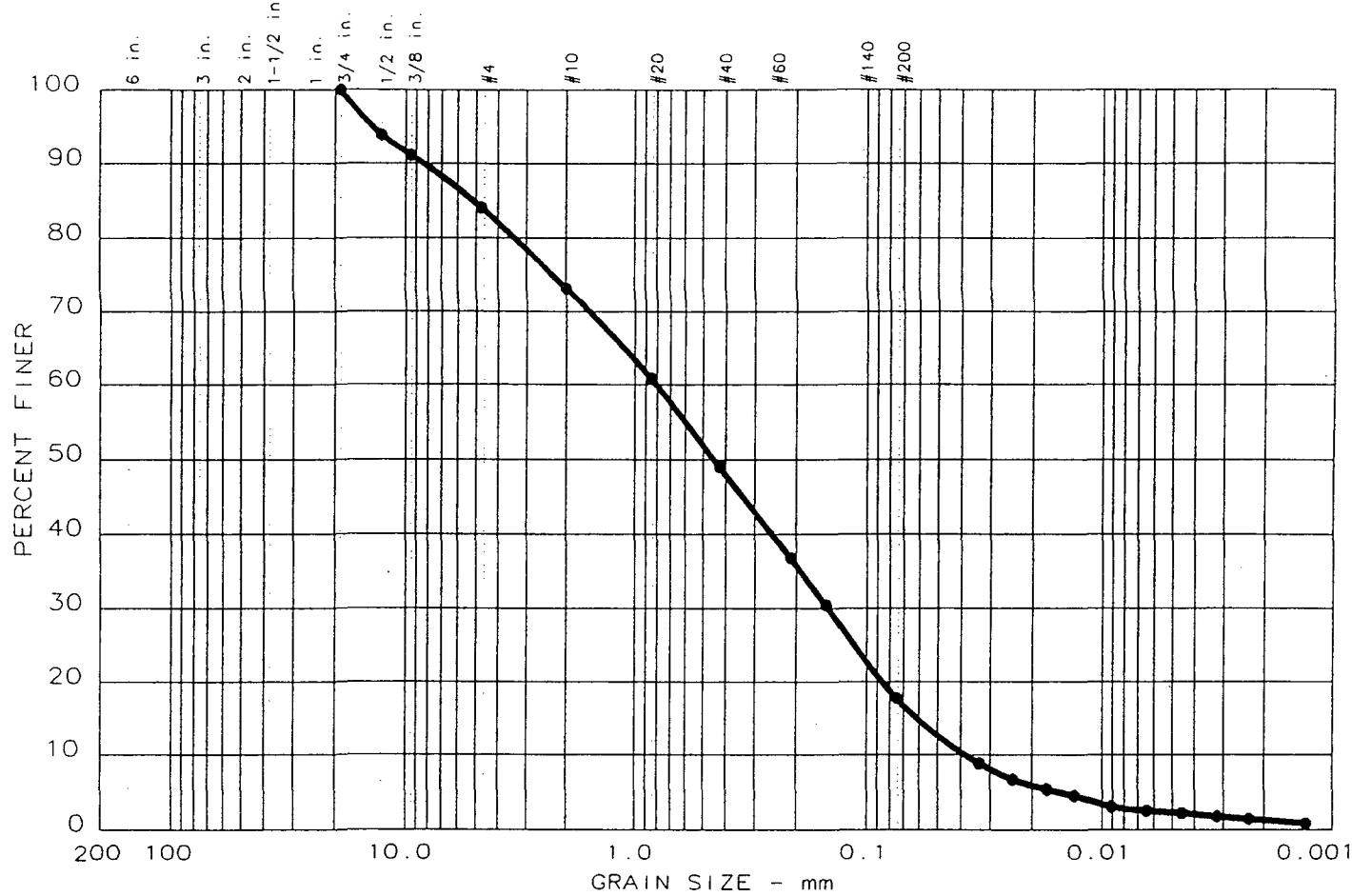
LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
•		1.58	0.35	0.23	0.121	0.0574	0.0269	1.56	13.1

MATERIAL DESCRIPTION		USCS	AASHTO
• Silty Sand		SM	

Project No.: 94006	Remarks:
Project: Wells H & G Site	
• Location: Sample No. TPL1A	
Date: January 10, 1994	
GRAIN SIZE DISTRIBUTION TEST REPORT	
GEI CONSULTANTS, INC., WINCHESTER, MA	

Figure No. 17

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	% +3"	% GRAVEL	% SAND		% FINES	
● 18	0.0	15.9	66.3		17.8	

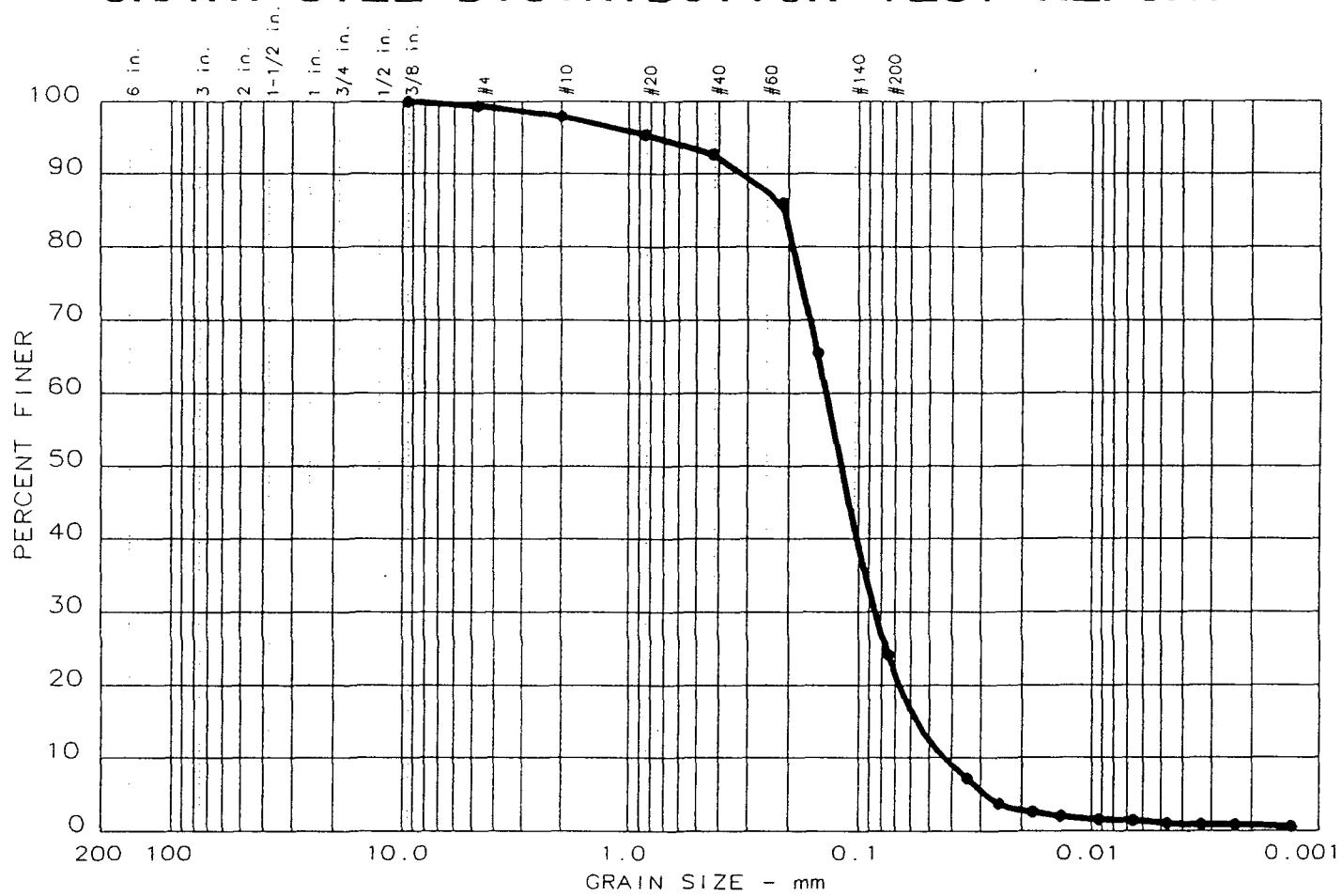
LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
●		5.13	0.80	0.45	0.146	0.0610	0.0380	0.70	21.1

MATERIAL DESCRIPTION	USCS	AASHTO
● Silty Sand with gravel	SM	

Project No.: 94006	Remarks:
Project: Wells G & H Site	
● Location: Sample TPL2A	
Date: January 20, 1994	
GRAIN SIZE DISTRIBUTION TEST REPORT	
GEI CONSULTANTS, INC., WINCHESTER, MA	

Figure No. 18

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	% +3"	% GRAVEL	% SAND		% FINES	
• 19	0.0	0.7	75.2		24.1	

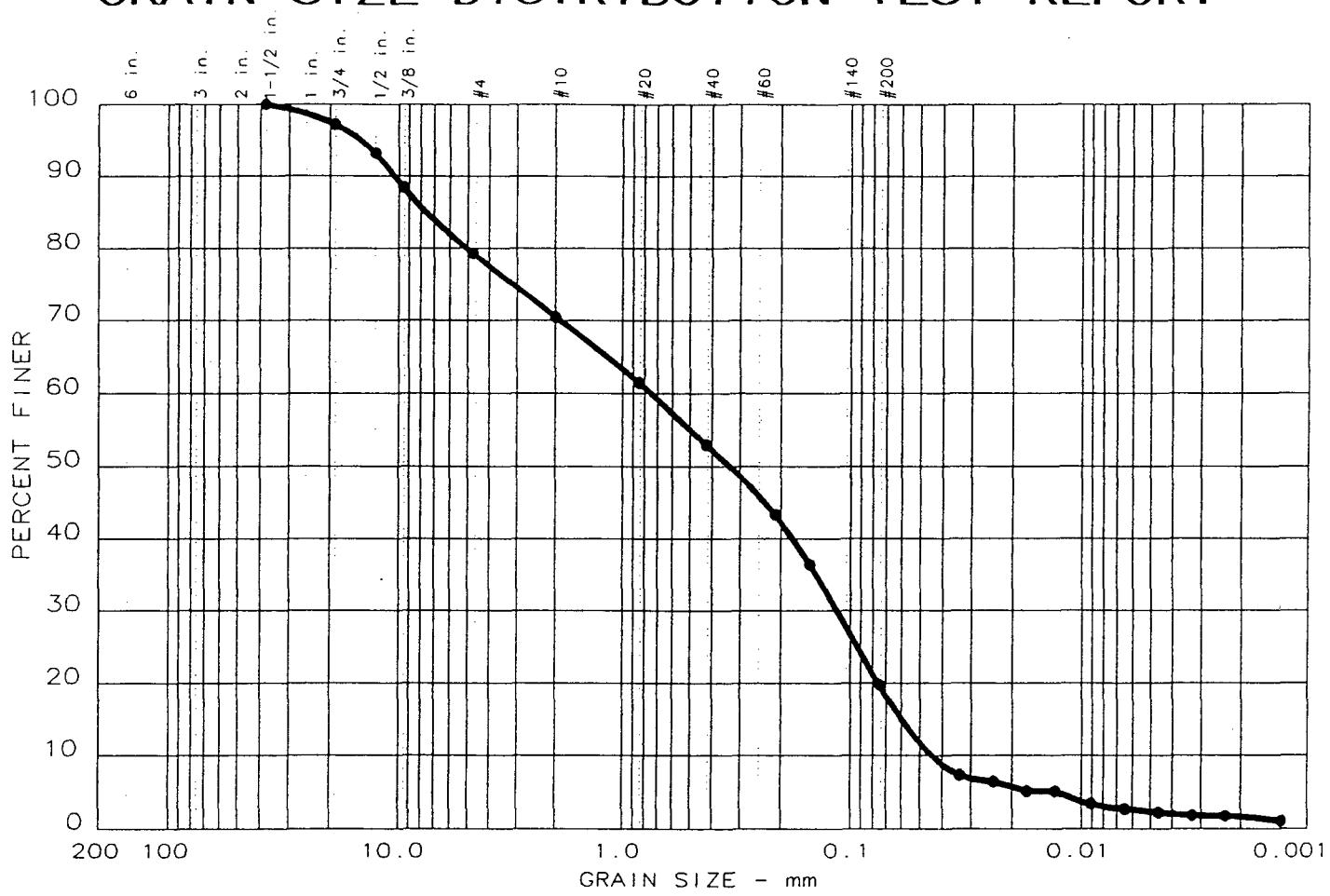
LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
•		0.21	0.14	0.12	0.085	0.0561	0.0426	1.23	3.2

MATERIAL DESCRIPTION				USCS	AASHTO
• Silty Sand				SM	

Project No.: 94006	Remarks:
Project: Wells G & H Site	
• Location: Sample TPL3A	
Date: January 20, 1994	
GRAIN SIZE DISTRIBUTION TEST REPORT	
GEI CONSULTANTS, INC., WINCHESTER, MA	

Figure No. 19

# GRAIN SIZE DISTRIBUTION TEST REPORT



Test	% +3"	% GRAVEL	% SAND			% FINES		
• 20	0.0	20.7						
			59.4			19.9		

LL	PI	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
•		7.50	0.74	0.33	0.114	0.0596	0.0442	0.39	16.8

MATERIAL DESCRIPTION	USCS	AASHTO
• Silty Sand with gravel	SM	

Project No.: 94006	Remarks:
Project: Wells G & H Site	
• Location: Sample TPL4A	
Date: January 20, 1994	
GRAIN SIZE DISTRIBUTION TEST REPORT	
GEI CONSULTANTS, INC., WINCHESTER, MA	

Figure No. 20

## **APPENDIX C**

### **Analytical Results for Groundwater Samples**

---

**APPENDIX C-1      Volatile-Organic Compounds**

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC INC

Contract: 92126

UC25A

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 42232

Matrix: (soil/water) WATER Lab Sample ID: 210665

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: K210665DV

Level: (low/med) LOW Date Received: 02/08/94

% Moisture: not dec. Date Analyzed: 02/14/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 227.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
---------	----------	-----------------	------	---

75-71-8-----	Dichlorodifluoromethane	23	U
74-87-3-----	Chloromethane	23	U
75-01-4-----	Vinyl Chloride	23	U
74-83-9-----	Bromomethane	23	U
75-00-3-----	Chloroethane	23	U
75-69-4-----	Trichlorofluoromethane	23	U
75-35-4-----	1,1-Dichloroethene	23	U
67-64-1-----	Acetone	230	U
75-15-0-----	Carbon Disulfide	23	U
75-09-2-----	Methylene Chloride	22	J 230
156-60-5-----	trans-1,2-Dichloroethene	23	U
75-34-3-----	1,1-Dichloroethane	23	U
590-20-7-----	2,2-Dichloropropane	23	U
156-59-4-----	cis-1,2-Dichloroethene	23	U
78-93-3-----	2-Butanone	230	U
74-97-5-----	Bromochloromethane	23	U
67-66-3-----	Chloroform	23	U
71-55-6-----	1,1,1-Trichloroethane	17	J
56-23-5-----	Carbon Tetrachloride	23	U
563-58-6-----	1,1-Dichloropropene	23	U
71-43-2-----	Benzene	23	U
107-06-2-----	1,2-Dichloroethane	23	U
79-01-6-----	Trichloroethene	23	U
78-87-5-----	1,2-Dichloropropane	23	U
74-95-3-----	Dibromomethane	23	U
75-27-4-----	Bromodichloromethane	23	U
10061-01-5-----	cis-1,3-Dichloropropene	23	U
108-10-1-----	4-Methyl-2-Pentanone	230	U
108-88-3-----	Toluene	23	U
10061-02-6-----	trans-1,3-Dichloropropene	23	U
79-00-5-----	1,1,2-Trichloroethane	23	U
127-18-4-----	Tetrachloroethene	1000	
142-28-9-----	1,3-Dichloropropane	23	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UC25A

Lab Name: AQUATEC INC

Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 42232

Matrix: (soil/water) WATER Lab Sample ID: 210665

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: K210665DV

Level: (low/med) LOW Date Received: 02/08/94

% Moisture: not dec. Date Analyzed: 02/14/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 227.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
591-78-6-----	2-Hexanone	230	U	
124-48-1-----	Dibromochloromethane	23	U	
106-93-4-----	1,2-Dibromoethane	23	U	
108-90-7-----	Chlorobenzene	23	U	
630-20-6-----	1,1,1,2-Tetrachloroethane	23	U	
100-41-4-----	Ethylbenzene	23	U	
108-38-3-----	m- & p-Xylene	23	U	
95-47-6-----	o-Xylene	23	U	
100-42-5-----	Styrene	23	U	
75-25-2-----	Bromoform	23	U	
98-82-8-----	Isopropylbenzene	23	U	
108-86-1-----	Bromobenzene	23	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	23	U	
96-18-4-----	1,2,3-Trichloropropane	23	U	J
103-65-1-----	n-Propylbenzene	23	U	
95-49-8-----	2-Chlorotoluene	23	U	
106-43-4-----	4-Chlorotoluene	23	U	
108-67-8-----	1,3,5-Trimethylbenzene	23	U	
98-06-6-----	tert-Butylbenzene	23	U	
95-63-6-----	1,2,4-Trimethylbenzene	23	U	
135-98-8-----	sec-Butylbenzene	23	U	
541-73-1-----	1,3-Dichlorobenzene	23	U	
106-46-7-----	1,4-Dichlorobenzene	23	U	
99-87-6-----	p-Isopropyltoluene	23	U	
95-50-1-----	1,2-Dichlorobenzene	23	U	
104-51-8-----	n-Butylbenzene	23	U	
96-12-8-----	1,2-Dibromo-3-Chloropropane	23	U	J
120-82-1-----	1,2,4-Trichlorobenzene	23	U	
87-68-3-----	Hexachlorobutadiene	23	U	
91-20-3-----	Naphthalene	23	U	
87-61-6-----	1,2,3-Trichlorobenzene	23	U	
1330-20-7-----	Xylene (total)	23	U	

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

UC25A

Lab Name: AQUATEC INC Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 42232

Matrix: (soil/water) WATER Lab Sample ID: 210665

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: K210665DV

Level: (low/med) LOW Date Received: 02/08/94

% Moisture: not dec. Date Analyzed: 02/14/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 227.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

125009 VAL

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C26SA

Lab Name: AQUATEC INC

Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208877

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208877V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/22/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
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75-71-8-----	Dichlorodifluoromethane	0.5	U
74-87-3-----	Chloromethane	0.5	U
75-01-4-----	Vinyl Chloride	0.5	U
74-83-9-----	Bromomethane	0.5	U
75-00-3-----	Chloroethane	0.5	U
75-69-4-----	Trichlorofluoromethane	0.5	U
75-35-4-----	1,1-Dichloroethene	0.5	U
67-64-1-----	Acetone	5	U
75-15-0-----	Carbon Disulfide	0.5	U
75-09-2-----	Methylene Chloride	0.5	U
156-60-5-----	trans-1,2-Dichloroethene	0.5	U
75-34-3-----	1,1-Dichloroethane	0.5	U
590-20-7-----	2,2-Dichloropropane	0.5	U
156-59-4-----	cis-1,2-Dichloroethene	0.5	U
78-93-3-----	2-Butanone	5	U
74-97-5-----	Bromochloromethane	0.5	U
67-66-3-----	Chloroform	0.5	U
71-55-6-----	1,1,1-Trichloroethane	0.6	
56-23-5-----	Carbon Tetrachloride	0.5	U
563-58-6-----	1,1-Dichloropropene	0.5	U
71-43-2-----	Benzene	0.5	U
107-06-2-----	1,2-Dichloroethane	0.5	U
79-01-6-----	Trichloroethene	0.5	U
78-87-5-----	1,2-Dichloropropane	0.5	U
74-95-3-----	Dibromomethane	0.5	U
75-27-4-----	Bromodichloromethane	0.5	U
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U
108-10-1-----	4-Methyl-2-Pentanone	5	U
108-88-3-----	Toluene	0.5	U
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U
79-00-5-----	1,1,2-Trichloroethane	0.5	U
127-18-4-----	Tetrachloroethene	76	E 51
142-28-9-----	1,3-Dichloropropane	0.5	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC INC

Contract: 92126

C26SA

Lab Code: AQUAI

Case No.: 92126

SAS No.:

SDG No.: 41872

Matrix: (soil/water) WATER

Lab Sample ID: 208877

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: I208877V

Level: (low/med) LOW

Date Received: 01/21/94

% Moisture: not dec.

Date Analyzed: 01/22/94

GC Column: CAP ID: 0.530 (mm)

Dilution Factor: 5.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

591-78-6-----	2-Hexanone	5	U
124-48-1-----	Dibromochloromethane	0.5	U
106-93-4-----	1,2-Dibromoethane	0.5	U
108-90-7-----	Chlorobenzene	0.5	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4-----	Ethylbenzene	0.5	U
108-38-3-----	m- & p-Xylene	0.5	U
95-47-6-----	o-Xylene	0.5	U
100-42-5-----	Styrene	0.5	U
75-25-2-----	Bromoform	0.5	U
98-82-8-----	Isopropylbenzene	0.5	U
108-86-1-----	Bromobenzene	0.5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4-----	1,2,3-Trichloropropane	0.5	U
103-65-1-----	n-Propylbenzene	0.5	U
95-49-8-----	2-Chlorotoluene	0.5	U
106-43-4-----	4-Chlorotoluene	0.5	U
108-67-8-----	1,3,5-Trimethylbenzene	0.5	U
98-06-6-----	tert-Butylbenzene	0.5	U
95-63-6-----	1,2,4-Trimethylbenzene	0.5	U
135-98-8-----	sec-Butylbenzene	0.5	U
541-73-1-----	1,3-Dichlorobenzene	0.5	U
106-46-7-----	1,4-Dichlorobenzene	0.5	U
99-87-6-----	p-Isopropyltoluene	0.5	U
95-50-1-----	1,2-Dichlorobenzene	0.5	U
104-51-8-----	n-Butylbenzene	0.5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1-----	1,2,4-Trichlorobenzene	0.5	U
87-68-3-----	Hexachlorobutadiene	0.5	U
91-20-3-----	Naphthalene	0.5	U
87-61-6-----	1,2,3-Trichlorobenzene	0.5	U
1330-20-7-----	Xylene (total)	0.5	U

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C26SA

Lab Name: AQUATEC INC Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208877

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208877V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/22/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

Number TICs found: 1 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SILICON COMPOUND	9.23	0.7	JXBK

124271 VAL

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC INC

Contract: 92126

C26DA

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208876

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208876V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/22/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
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75-71-8-----	Dichlorodifluoromethane	0.5	U
74-87-3-----	Chloromethane	0.5	U
75-01-4-----	Vinyl Chloride	0.5	U
74-83-9-----	Bromomethane	0.5	U
75-00-3-----	Chloroethane	0.5	U
75-69-4-----	Trichlorodifluoromethane	0.5	U
75-35-4-----	1,1-Dichloroethene	3	
67-64-1-----	Acetone	5	U
75-15-0-----	Carbon Disulfide	0.3	J
75-09-2-----	Methylene Chloride	0.8	U
156-60-5-----	trans-1,2-Dichloroethene	0.3	J
75-34-3-----	1,1-Dichloroethane	2	
590-20-7-----	2,2-Dichloropropane	0.5	U
156-59-4-----	cis-1,2-Dichloroethene	26	
78-93-3-----	2-Butanone	5	U
74-97-5-----	Bromochloromethane	0.5	U
67-66-3-----	Chloroform	0.2	J
71-55-6-----	1,1,1-Trichloroethane	0.5	J
56-23-5-----	Carbon Tetrachloride	0.5	U
563-58-6-----	1,1-Dichloropropene	0.5	U
71-43-2-----	Benzene	0.5	U
107-06-2-----	1,2-Dichloroethane	0.5	U
79-01-6-----	Trichloroethene	28	
78-87-5-----	1,2-Dichloropropane	0.5	U
74-95-3-----	Dibromomethane	0.5	U
75-27-4-----	Bromodichloromethane	0.5	U
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U
108-10-1-----	4-Methyl-2-Pentanone	5	U
108-88-3-----	Toluene	5	
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U
79-00-5-----	1,1,2-Trichloroethane	0.5	U
127-18-4-----	Tetrachloroethene	420	E 920
142-28-9-----	1,3-Dichloropropane	0.5	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C26DA

Lab Name: AQUATEC INC

Contract: 92126

Lab Code: AQUAI

Case No.: 92126

SAS No.:

SDG No.: 41872

Matrix: (soil/water) WATER

Lab Sample ID: 208876

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: I208876V

Level: (low/med) LOW

Date Received: 01/21/94

% Moisture: not dec.

Date Analyzed: 01/22/94

GC Column: CAP ID: 0.530 (mm)

Dilution Factor: 5.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
591-78-6-----	2-Hexanone	5	U
124-48-1-----	Dibromochloromethane	0.5	U
106-93-4-----	1,2-Dibromoethane	0.5	U
108-90-7-----	Chlorobenzene	0.5	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4-----	Ethylbenzene	0.5	U
108-38-3-----	m- & p-Xylene	0.5	U
95-47-6-----	o-Xylene	0.5	U
100-42-5-----	Styrene	0.5	U
75-25-2-----	Bromoform	0.5	U
98-82-8-----	Isopropylbenzene	0.5	U
108-86-1-----	Bromobenzene	0.5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4-----	1,2,3-Trichloropropane	0.5	U
103-65-1-----	n-Propylbenzene	0.5	U
95-49-8-----	2-Chlorotoluene	0.5	U
106-43-4-----	4-Chlorotoluene	0.5	U
108-67-8-----	1,3,5-Trimethylbenzene	0.5	U
98-06-6-----	tert-Butylbenzene	0.5	U
95-63-6-----	1,2,4-Trimethylbenzene	0.5	U
135-98-8-----	sec-Butylbenzene	0.5	U
541-73-1-----	1,3-Dichlorobenzene	0.5	U
106-46-7-----	1,4-Dichlorobenzene	0.5	U
99-87-6-----	p-Isopropyltoluene	0.5	U
95-50-1-----	1,2-Dichlorobenzene	0.5	U
104-51-8-----	n-Butylbenzene	0.5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1-----	1,2,4-Trichlorobenzene	0.5	U
87-68-3-----	Hexachlorobutadiene	0.5	U
91-20-3-----	Naphthalene	0.5	U
87-61-6-----	1,2,3-Trichlorobenzene	0.5	U
1330-20-7-----	Xylene (total)	0.5	U

124264 VAL

FORM I VOA

3/90

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C26DA

Lab Name: AQUATEC INC Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208876

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208876V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/22/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

Number TICs found: 3 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 115-07-1	1-PROPENE	2.12	5	JXN
2. 1191-96-4	CYCLOPROPANE, ETHYL-	3.35	0.8	JXN
3.	UNKNOWN SILICON COMPOUND	9.23	0.5	JXB R

124265 VAL

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC INC

Contract: 92126

C29SA

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208879

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208879V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/22/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
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75-71-8-----	Dichlorodifluoromethane	0.5	U
74-87-3-----	Chloromethane	0.5	U
75-01-4-----	Vinyl Chloride	0.5	U
74-83-9-----	Bromomethane	0.5	U
75-00-3-----	Chloroethane	0.5	U
75-69-4-----	Trichlorofluoromethane	0.5	U
75-35-4-----	1,1-Dichloroethene	0.5	U
67-64-1-----	Acetone	5	U
75-15-0-----	Carbon Disulfide	0.5	U
75-09-2-----	Methylene Chloride	0.2	J 0.5 U
156-60-5-----	trans-1,2-Dichloroethene	0.7	
75-34-3-----	1,1-Dichloroethane	0.8	
590-20-7-----	2,2-Dichloropropane	0.5	U
156-59-4-----	cis-1,2-Dichloroethene	14	
78-93-3-----	2-Butanone	5	U
74-97-5-----	Bromochloromethane	0.5	U
67-66-3-----	Chloroform	78	
71-55-6-----	1,1,1-Trichloroethane	3	
56-23-5-----	Carbon Tetrachloride	0.5	U
563-58-6-----	1,1-Dichloropropene	0.5	U
71-43-2-----	Benzene	0.5	U
107-06-2-----	1,2-Dichloroethane	0.5	U
79-01-6-----	Trichloroethene	5	
78-87-5-----	1,2-Dichloropropane	0.5	U
74-95-3-----	Dibromomethane	0.5	U
75-27-4-----	Bromodichloromethane	0.5	U
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U
108-10-1-----	4-Methyl-2-Pentanone	5	U
108-88-3-----	Toluene	0.5	U
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U
79-00-5-----	1,1,2-Trichloroethane	0.5	U
127-18-4-----	Tetrachloroethene	300	E 290
142-28-9-----	1,3-Dichloropropane	0.5	U
/			

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC INC

Contract: 92126

C29SA

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208879

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208879V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/22/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
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591-78-6-----	2-Hexanone	5	U
124-48-1-----	Dibromochloromethane	0.5	U
106-93-4-----	1,2-Dibromoethane	0.5	U
108-90-7-----	Chlorobenzene	0.5	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4-----	Ethylbenzene	0.5	U
108-38-3-----	m- & p-Xylene	0.5	U
95-47-6-----	o-Xylene	0.5	U
100-42-5-----	Styrene	0.5	U
75-25-2-----	Bromoform	0.5	U
98-82-8-----	Isopropylbenzene	0.5	U
108-86-1-----	Bromobenzene	0.5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4-----	1,2,3-Trichloropropane	0.5	U
103-65-1-----	n-Propylbenzene	0.5	U
95-49-8-----	2-Chlorotoluene	0.5	U
106-43-4-----	4-Chlorotoluene	0.5	U
108-67-8-----	1,3,5-Trimethylbenzene	0.5	U
98-06-6-----	tert-Butylbenzene	0.5	U
95-63-6-----	1,2,4-Trimethylbenzene	0.5	U
135-98-8-----	sec-Butylbenzene	0.5	U
541-73-1-----	1,3-Dichlorobenzene	0.5	U
106-46-7-----	1,4-Dichlorobenzene	0.5	U
99-87-6-----	p-Isopropyltoluene	0.5	U
95-50-1-----	1,2-Dichlorobenzene	0.5	U
104-51-8-----	n-Butylbenzene	0.5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1-----	1,2,4-Trichlorobenzene	0.5	U
87-68-3-----	Hexachlorobutadiene	0.5	U
91-20-3-----	Naphthalene	0.5	U
87-61-6-----	1,2,3-Trichlorobenzene	0.5	U
1330-20-7-----	Xylene (total)	0.5	U

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C29SA

Lab Name: AQUATEC INC

Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208879

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208879V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/22/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

Number TICs found: 1 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SILICON COMPOUND	9.17	0.7	JXBR

124283 VAL

FORM I VOA-TIC

3/90

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC INC

Contract: 92126

C29DA

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208878

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208878V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/22/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------	---

75-71-8-----	Dichlorodifluoromethane	0.5	U
74-87-3-----	Chloromethane	0.5	U
75-01-4-----	Vinyl Chloride	0.5	U
74-83-9-----	Bromomethane	0.5	U
75-00-3-----	Chloroethane	0.5	U
75-69-4-----	Trichlorofluoromethane	0.5	U
75-35-4-----	1,1-Dichloroethene	0.5	U
67-64-1-----	Acetone	5	U
75-15-0-----	Carbon Disulfide	0.5	U
75-09-2-----	Methylene Chloride	0.5	U
156-60-5-----	trans-1,2-Dichloroethene	0.5	U
75-34-3-----	1,1-Dichloroethane	0.5	U
590-20-7-----	2,2-Dichloropropane	0.5	U
156-59-4-----	cis-1,2-Dichloroethene	1	
78-93-3-----	2-Butanone	5	U
74-97-5-----	Bromochloromethane	0.5	U
67-66-3-----	Chloroform	2	
71-55-6-----	1,1,1-Trichloroethane	0.7	
56-23-5-----	Carbon Tetrachloride	0.5	U
563-58-6-----	1,1-Dichloropropene	0.5	U
71-43-2-----	Benzene	0.5	U
107-06-2-----	1,2-Dichloroethane	0.5	U
79-01-6-----	Trichloroethene	0.8	
78-87-5-----	1,2-Dichloropropane	0.5	U
74-95-3-----	Dibromomethane	0.5	U
75-27-4-----	Bromodichloromethane	0.5	U
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U
108-10-1-----	4-Methyl-2-Pentanone	5	U
108-88-3-----	Toluene	0.5	U
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U
79-00-5-----	1,1,2-Trichloroethane	0.5	U
127-18-4-----	Tetrachloroethene	120	75
142-28-9-----	1,3-Dichloropropane	0.5	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C29DA

Lab Name: AQUATEC INC

Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208878

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208878V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/22/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

591-78-6-----	2-Hexanone	5	U
124-48-1-----	Dibromochloromethane	0.5	U
106-93-4-----	1,2-Dibromoethane	0.5	U
108-90-7-----	Chlorobenzene	0.5	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4-----	Ethylbenzene	0.5	U
108-38-3-----	m- & p-Xylene	0.5	U
95-47-6-----	o-Xylene	0.5	U
100-42-5-----	Styrene	0.5	U
75-25-2-----	Bromoform	0.5	U
98-82-8-----	Isopropylbenzene	0.5	U
108-86-1-----	Bromobenzene	0.5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4-----	1,2,3-Trichloropropane	0.5	U
103-65-1-----	n-Propylbenzene	0.5	U
95-49-8-----	2-Chlorotoluene	0.5	U
106-43-4-----	4-Chlorotoluene	0.5	U
108-67-8-----	1,3,5-Trimethylbenzene	0.5	U
98-06-6-----	tert-Butylbenzene	0.5	U
95-63-6-----	1,2,4-Trimethylbenzene	0.5	U
135-98-8-----	sec-Butylbenzene	0.5	U
541-73-1-----	1,3-Dichlorobenzene	0.5	U
106-46-7-----	1,4-Dichlorobenzene	0.5	U
99-87-6-----	p-Isopropyltoluene	0.5	U
95-50-1-----	1,2-Dichlorobenzene	0.5	U
104-51-8-----	n-Butylbenzene	0.5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1-----	1,2,4-Trichlorobenzene	0.5	U
87-68-3-----	Hexachlorobutadiene	0.5	U
91-20-3-----	Naphthalene	0.5	U
87-61-6-----	1,2,3-Trichlorobenzene	0.5	U
1330-20-7-----	Xylene (total)	0.5	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: AQUATEC INC

Contract: 92126

C29DA

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208878

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208878V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/22/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

Number TICs found: 3

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 115-07-1	1-PROPENE	2.08	0.7	JXN
2. 106-97-8	BUTANE	2.43	0.7	JXN
3.	UNKNOWN SILICON COMPOUND	9.17	1	JXB R

124277 VAL

FORM I VOA-TIC

3/90

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC INC

Contract: 92126

UC30A

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 42232

Matrix: (soil/water) WATER Lab Sample ID: 210669

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: K210669V

Level: (low/med) LOW Date Received: 02/08/94

% Moisture: not dec. Date Analyzed: 02/14/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
---------	----------	-----------------	------	---

75-71-8-----	Dichlorodifluoromethane _____		0.5	U
74-87-3-----	Chloromethane _____		0.5	U
75-01-4-----	Vinyl Chloride _____		0.5	U
74-83-9-----	Bromomethane _____		0.5	U
75-00-3-----	Chloroethane _____		0.5	U
75-69-4-----	Trichlorofluoromethane _____		0.5	U
75-35-4-----	1,1-Dichloroethene _____		0.5	U
67-64-1-----	Acetone _____		5	U
75-15-0-----	Carbon Disulfide _____		2	X U
75-09-2-----	Methylene Chloride _____		0.5	U
156-60-5-----	trans-1,2-Dichloroethene _____		0.5	U
75-34-3-----	1,1-Dichloroethane _____		0.5	U
590-20-7-----	2,2-Dichloropropane _____		0.5	U
156-59-4-----	cis-1,2-Dichloroethene _____		0.5	U
78-93-3-----	2-Butanone _____		5	U
74-97-5-----	Bromochloromethane _____		0.5	U
67-66-3-----	Chloroform _____		0.5	U
71-55-6-----	1,1,1-Trichloroethane _____		1	
56-23-5-----	Carbon Tetrachloride _____		0.5	U
563-58-6-----	1,1-Dichloropropene _____		0.5	U
71-43-2-----	Benzene _____		0.5	U
107-06-2-----	1,2-Dichloroethane _____		0.5	U
79-01-6-----	Trichloroethene _____		0.5	U
78-87-5-----	1,2-Dichloropropane _____		0.5	U
74-95-3-----	Dibromomethane _____		0.5	U
75-27-4-----	Bromodichloromethane _____		0.5	U
10061-01-5-----	cis-1,3-Dichloropropene _____		0.5	U
108-10-1-----	4-Methyl-2-Pentanone _____		5	U
108-88-3-----	Toluene _____		0.5	U
10061-02-6-----	trans-1,3-Dichloropropene _____		0.5	U
79-00-5-----	1,1,2-Trichloroethane _____		0.5	U
127-18-4-----	Tetrachloroethene _____		33	29
142-28-9-----	1,3-Dichloropropane _____		0.5	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC INC

Contract: 92126

UC30A

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 42232

Matrix: (soil/water) WATER Lab Sample ID: 210669

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: K210669V

Level: (low/med) LOW Date Received: 02/08/94

% Moisture: not dec. Date Analyzed: 02/14/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

591-78-6-----	2-Hexanone	5	U
124-48-1-----	Dibromochloromethane	0.5	U
106-93-4-----	1,2-Dibromoethane	0.5	U
108-90-7-----	Chlorobenzene	0.5	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4-----	Ethylbenzene	0.5	U
108-38-3-----	m- & p-Xylene	0.5	U
95-47-6-----	o-Xylene	0.5	U
100-42-5-----	Styrene	0.5	U
75-25-2-----	Bromoform	0.5	U
98-82-8-----	Isopropylbenzene	0.5	U
108-86-1-----	Bromobenzene	0.5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4-----	1,2,3-Trichloropropane	0.5	UJ
103-65-1-----	n-Propylbenzene	0.5	U
95-49-8-----	2-Chlorotoluene	0.5	U
106-43-4-----	4-Chlorotoluene	0.5	U
108-67-8-----	1,3,5-Trimethylbenzene	0.5	U
98-06-6-----	tert-Butylbenzene	0.5	U
95-63-6-----	1,2,4-Trimethylbenzene	0.5	U
135-98-8-----	sec-Butylbenzene	0.5	U
541-73-1-----	1,3-Dichlorobenzene	0.5	U
106-46-7-----	1,4-Dichlorobenzene	0.5	U
99-87-6-----	p-Isopropyltoluene	0.5	U
95-50-1-----	1,2-Dichlorobenzene	0.5	U
104-51-8-----	n-Butylbenzene	0.5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.5	UJ
120-82-1-----	1,2,4-Trichlorobenzene	0.5	U
87-68-3-----	Hexachlorobutadiene	0.5	U
91-20-3-----	Naphthalene	0.5	U
87-61-6-----	1,2,3-Trichlorobenzene	0.5	U
1330-20-7-----	Xylene (total)	0.5	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: AQUATEC INC

Contract: 92126

UC30A

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 42232

Matrix: (soil/water) WATER Lab Sample ID: 210669

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: K210669V

Level: (low/med) LOW Date Received: 02/08/94

% Moisture: not dec. Date Analyzed: 02/14/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

125018 VAL

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC INC

Contract: 92126

UC30B

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 42232

Matrix: (soil/water) WATER Lab Sample ID: 210671

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: 210671V

Level: (low/med) LOW Date Received: 02/08/94

% Moisture: not dec. Date Analyzed: 02/14/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
---------	----------	-----------------	------	---

75-71-8-----	Dichlorodifluoromethane	0.5	U	
74-87-3-----	Chloromethane	0.5	U	
75-01-4-----	Vinyl Chloride	0.5	U	
74-83-9-----	Bromomethane	0.5	U	
75-00-3-----	Chloroethane	0.5	U	
75-69-4-----	Trichlorofluoromethane	0.5	U	
75-35-4-----	1,1-Dichloroethene	0.5	U	
67-64-1-----	Acetone	5	U	
75-15-0-----	Carbon Disulfide	2	BU	
75-09-2-----	Methylene Chloride	0.5	U	
156-60-5-----	trans-1,2-Dichloroethene	0.5	U	
75-34-3-----	1,1-Dichloroethane	0.5	U	
590-20-7-----	2,2-Dichloropropane	0.5	U	
156-59-4-----	cis-1,2-Dichloroethene	0.5	U	
78-93-3-----	2-Butanone	5	U	
74-97-5-----	Bromochloromethane	0.5	U	
67-66-3-----	Chloroform	0.5	U	
71-55-6-----	1,1,1-Trichloroethane	1		
56-23-5-----	Carbon Tetrachloride	0.5	U	
563-58-6-----	1,1-Dichloropropene	0.5	U	
71-43-2-----	Benzene	0.5	U	
107-06-2-----	1,2-Dichloroethane	0.5	U	
79-01-6-----	Trichloroethene	0.5	U	
78-87-5-----	1,2-Dichloropropane	0.5	U	
74-95-3-----	Dibromomethane	0.5	U	
75-27-4-----	Bromodichloromethane	0.5	U	
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U	
108-10-1-----	4-Methyl-2-Pentanone	5	U	
108-88-3-----	Toluene	0.5	U	
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U	
79-00-5-----	1,1,2-Trichloroethane	0.5	U	
127-18-4-----	Tetrachloroethene	30		
142-28-9-----	1,3-Dichloropropene	0.5	U	

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC INC

Contract: 92126

UC30B

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 42232

Matrix: (soil/water) WATER Lab Sample ID: 210671

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: 210671V

Level: (low/med) LOW Date Received: 02/08/94

% Moisture: not dec. Date Analyzed: 02/14/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
---------	----------	-----------------	------	---

591-78-6-----	2-Hexanone	5	U	
124-48-1-----	Dibromochloromethane	0.5	U	
106-93-4-----	1,2-Dibromoethane	0.5	U	
108-90-7-----	Chlorobenzene	0.5	U	
630-20-6-----	1,1,1,2-Tetrachloroethane	0.5	U	
100-41-4-----	Ethylbenzene	0.5	U	
108-38-3-----	m- & p-Xylene	0.5	U	
95-47-6-----	o-Xylene	0.5	U	
100-42-5-----	Styrene	0.5	U	
75-25-2-----	Bromoform	0.5	U	
98-82-8-----	Isopropylbenzene	0.5	U	
108-86-1-----	Bromobenzene	0.5	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U	
96-18-4-----	1,2,3-Trichloropropane	0.5	UJ	
103-65-1-----	n-Propylbenzene	0.5	U	
95-49-8-----	2-Chlorotoluene	0.5	U	
106-43-4-----	4-Chlorotoluene	0.5	U	
108-67-8-----	1,3,5-Trimethylbenzene	0.5	U	
98-06-6-----	tert-Butylbenzene	0.5	U	
95-63-6-----	1,2,4-Trimethylbenzene	0.5	U	
135-98-8-----	sec-Butylbenzene	0.5	U	
541-73-1-----	1,3-Dichlorobenzene	0.5	U	
106-46-7-----	1,4-Dichlorobenzene	0.5	U	
99-87-6-----	p-Isopropyltoluene	0.5	U	
95-50-1-----	1,2-Dichlorobenzene	0.5	U	
104-51-8-----	n-Butylbenzene	0.5	U	
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.5	UJ	
120-82-1-----	1,2,4-Trichlorobenzene	0.5	U	
87-68-3-----	Hexachlorobutadiene	0.5	U	
91-20-3-----	Naphthalene	0.5	U	
87-61-6-----	1,2,3-Trichlorobenzene	0.5	U	
1330-20-7-----	Xylene (total)	0.5	U	

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: AQUATEC INC

Contract: 92126

UC30B

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 42232

Matrix: (soil/water) WATER Lab Sample ID: 210671

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: 210671V

Level: (low/med) LOW Date Received: 02/08/94

% Moisture: not dec. Date Analyzed: 02/14/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

125024 VAL

FORM I VOA-TIC

3/90

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C31SA

Lab Name: AQUATEC INC

Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208883

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208883I2V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/25/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

75-71-8-----	Dichlorodifluoromethane _____	0.5	U
74-87-3-----	Chloromethane _____	0.5	U
75-01-4-----	Vinyl Chloride _____	0.5	U
74-83-9-----	Bromomethane _____	0.5	U
75-00-3-----	Chloroethane _____	0.5	U
75-69-4-----	Trichlorofluoromethane _____	0.5	U
75-35-4-----	1,1-Dichloroethene _____	0.5	U
67-64-1-----	Acetone _____	5	U
75-15-0-----	Carbon Disulfide _____	0.5	U
75-09-2-----	Methylene Chloride _____	0.5	U
156-60-5-----	trans-1,2-Dichloroethene _____	0.5	U
75-34-3-----	1,1-Dichloroethane _____	0.5	U
590-20-7-----	2,2-Dichloropropane _____	0.5	U
156-59-4-----	cis-1,2-Dichloroethene _____	0.5	U
78-93-3-----	2-Butanone _____	5	U
74-97-5-----	Bromochloromethane _____	0.5	U
67-66-3-----	Chloroform _____	0.5	U
71-55-6-----	1,1,1-Trichloroethane _____	0.5	U
56-23-5-----	Carbon Tetrachloride _____	0.5	U
563-58-6-----	1,1-Dichloropropene _____	0.5	U
71-43-2-----	Benzene _____	0.5	U
107-06-2-----	1,2-Dichloroethane _____	0.5	U
79-01-6-----	Trichloroethene _____	0.5	U
78-87-5-----	1,2-Dichloropropane _____	0.5	U
74-95-3-----	Dibromomethane _____	0.5	U
75-27-4-----	Bromodichloromethane _____	0.5	U
10061-01-5-----	cis-1,3-Dichloropropene _____	0.5	U
108-10-1-----	4-Methyl-2-Pentanone _____	5	U
108-88-3-----	Toluene _____	0.8	
10061-02-6-----	trans-1,3-Dichloropropene _____	0.5	U
79-00-5-----	1,1,2-Trichloroethane _____	0.5	U
127-18-4-----	Tetrachloroethene _____	2	
142-28-9-----	1,3-Dichloropropane _____	0.5	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C31SA

Lab Name: AQUATEC INC

Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208883

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208883I2V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/25/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
591-78-6-----	2-Hexanone	5	U
124-48-1-----	Dibromochloromethane	0.5	U
106-93-4-----	1,2-Dibromoethane	0.5	U
108-90-7-----	Chlorobenzene	0.5	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4-----	Ethylbenzene	0.5	U
108-38-3-----	m- & p-Xylene	0.5	U
95-47-6-----	o-Xylene	0.5	U
100-42-5-----	Styrene	0.5	U
75-25-2-----	Bromoform	0.5	U
98-82-8-----	Isopropylbenzene	0.5	U
108-86-1-----	Bromobenzene	0.5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4-----	1,2,3-Trichloropropane	0.5	U
103-65-1-----	n-Propylbenzene	0.5	U
95-49-8-----	2-Chlorotoluene	0.5	U
106-43-4-----	4-Chlorotoluene	0.5	U
108-67-8-----	1,3,5-Trimethylbenzene	0.5	U
98-06-6-----	tert-Butylbenzene	0.5	U
95-63-6-----	1,2,4-Trimethylbenzene	0.5	U
135-98-8-----	sec-Butylbenzene	0.5	U
541-73-1-----	1,3-Dichlorobenzene	0.5	U
106-46-7-----	1,4-Dichlorobenzene	0.5	U
99-87-6-----	p-Isopropyltoluene	0.5	U
95-50-1-----	1,2-Dichlorobenzene	0.5	U
104-51-8-----	n-Butylbenzene	0.5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1-----	1,2,4-Trichlorobenzene	0.5	U
87-68-3-----	Hexachlorobutadiene	0.5	U
91-20-3-----	Naphthalene	0.5	U
87-61-6-----	1,2,3-Trichlorobenzene	0.5	U
1330-20-7-----	Xylene (total)	0.5	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C31SA

Lab Name: AQUATEC INC Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208883

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208883I2V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/25/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

Number TICs found: 3 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 115-07-1	1-PROPENE	2.13	3	JXN
2.	UNKNOWN	2.52	2	JX
3.	UNKNOWN SILICON COMPOUND	9.20	1	JXB R

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C31MA

Lab Name: AQUATEC INC

Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208882

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208882V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/23/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
---------	----------	-----------------	------	---

75-71-8-----	Dichlorodifluoromethane		0.5	U
74-87-3-----	Chloromethane		0.5	U
75-01-4-----	Vinyl Chloride		0.5	U
74-83-9-----	Bromomethane		0.5	U
75-00-3-----	Chloroethane		0.5	U
75-69-4-----	Trichlorofluoromethane		0.5	U
75-35-4-----	1,1-Dichloroethene		0.5	U
67-64-1-----	Acetone	5		
75-15-0-----	Carbon Disulfide	0.5	U	
75-09-2-----	Methylene Chloride	0.5	<b>U</b>	
156-60-5-----	trans-1,2-Dichloroethene	0.5	U	
75-34-3-----	1,1-Dichloroethane	0.5	U	
590-20-7-----	2,2-Dichloropropane	0.5	U	
156-59-4-----	cis-1,2-Dichloroethene	0.5	U	
78-93-3-----	2-Butanone	5	U	
74-97-5-----	Bromochloromethane	0.5	U	
67-66-3-----	Chloroform	0.2	J	
71-55-6-----	1,1,1-Trichloroethane	0.5	U	
56-23-5-----	Carbon Tetrachloride	0.5	U	
563-58-6-----	1,1-Dichloropropene	0.5	U	
71-43-2-----	Benzene	0.5	U	
107-06-2-----	1,2-Dichloroethane	0.5	U	
79-01-6-----	Trichloroethene	0.6		
78-87-5-----	1,2-Dichloropropane	0.5	U	
74-95-3-----	Dibromomethane	0.5	U	
75-27-4-----	Bromodichloromethane	0.5	U	
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U	
108-10-1-----	4-Methyl-2-Pentanone	5	U	
108-88-3-----	Toluene	0.2	J	
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U	
79-00-5-----	1,1,2-Trichloroethane	0.5	U	
127-18-4-----	Tetrachloroethene	9		
142-28-9-----	1,3-Dichloropropene	0.5	U	

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C31MA

Lab Name: AQUATEC INC

Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208882

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208882V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/23/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

591-78-6-----	2-Hexanone	5	U
124-48-1-----	Dibromochloromethane	0.5	U
106-93-4-----	1,2-Dibromoethane	0.5	U
108-90-7-----	Chlorobenzene	0.5	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4-----	Ethylbenzene	0.5	U
108-38-3-----	m- & p-Xylene	0.2	J
95-47-6-----	o-Xylene	0.5	U
100-42-5-----	Styrene	0.5	U
75-25-2-----	Bromoform	0.5	U
98-82-8-----	Isopropylbenzene	0.5	U
108-86-1-----	Bromobenzene	0.5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4-----	1,2,3-Trichloropropane	0.5	U
103-65-1-----	n-Propylbenzene	0.5	U
95-49-8-----	2-Chlorotoluene	0.5	U
106-43-4-----	4-Chlorotoluene	0.5	U
108-67-8-----	1,3,5-Trimethylbenzene	0.5	U
98-06-6-----	tert-Butylbenzene	0.5	U
95-63-6-----	1,2,4-Trimethylbenzene	0.5	U
135-98-8-----	sec-Butylbenzene	0.5	U
541-73-1-----	1,3-Dichlorobenzene	0.5	U
106-46-7-----	1,4-Dichlorobenzene	0.5	U
99-87-6-----	p-Isopropyltoluene	0.5	U
95-50-1-----	1,2-Dichlorobenzene	0.5	U
104-51-8-----	n-Butylbenzene	0.5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1-----	1,2,4-Trichlorobenzene	0.5	U
87-68-3-----	Hexachlorobutadiene	0.5	U
91-20-3-----	Naphthalene	0.8	
87-61-6-----	1,2,3-Trichlorobenzene	0.5	U
1330-20-7-----	Xylene (total)	0.3	J

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C31MA

Lab Name: AQUATEC INC Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208882

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208882V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/23/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

Number TICs found: 10 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 115-07-1	1-PROPENE	2.13	14	JXN
2. 75-28-5	PROPANE, 2-METHYL-	2.32	1	JXN
3.	UNKNOWN	2.48	12	JX
4.	UNKNOWN BUTENE	2.68	1	JX
5. 78-78-4	BUTANE, 2-METHYL-	3.12	2	JXN
6. 1191-96-4	CYCLOPROPANE, ETHYL-	3.37	3	JXN
7. 109-66-0	PENTANE	3.43	2	JXN
8.	UNKNOWN DIMETHYLCYCLOPROPANE	3.75	0.9	JX
9. 592-41-6	1-HEXENE	5.00	1	JXN
10.	UNKNOWN SILICON COMPOUND	9.25	1	JXB R

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C31DA

Lab Name: AQUATEC INC

Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208880

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208880V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/22/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
---------	----------	-----------------	------	---

75-71-8-----	Dichlorodifluoromethane	0.5	U	
74-87-3-----	Chloromethane	0.5	U	
75-01-4-----	Vinyl Chloride	0.5	U	
74-83-9-----	Bromomethane	0.5	U	
75-00-3-----	Chloroethane	0.5	U	
75-69-4-----	Trichlorofluoromethane	0.5	U	
75-35-4-----	1,1-Dichloroethene	0.5	U	
67-64-1-----	Acetone	2	J	
75-15-0-----	Carbon Disulfide	0.8		
75-09-2-----	Methylene Chloride	0.3	J 0.5 U	
156-60-5-----	trans-1,2-Dichloroethene	0.5	U	
75-34-3-----	1,1-Dichloroethane	0.3	J	
590-20-7-----	2,2-Dichloropropane	0.5	U	
156-59-4-----	cis-1,2-Dichloroethene	0.5		
78-93-3-----	2-Butanone	5	U	
74-97-5-----	Bromochloromethane	0.5	U	
67-66-3-----	Chloroform	0.5	U	
71-55-6-----	1,1,1-Trichloroethane	0.5	U	
56-23-5-----	Carbon Tetrachloride	0.5	U	
563-58-6-----	1,1-Dichloropropene	0.5	U	
71-43-2-----	Benzene	0.5	U	
107-06-2-----	1,2-Dichloroethane	0.5	U	
79-01-6-----	Trichloroethene	3		
78-87-5-----	1,2-Dichloropropane	0.5	U	
74-95-3-----	Dibromomethane	0.5	U	
75-27-4-----	Bromodichloromethane	0.5	U	
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U	
108-10-1-----	4-Methyl-2-Pentanone	5	U	
108-88-3-----	Toluene	0.5	U	
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U	
79-00-5-----	1,1,2-Trichloroethane	0.5	U	
127-18-4-----	Tetrachloroethene	220	E 170	
142-28-9-----	1,3-Dichloropropane	0.5	U	

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C31DA

Lab Name: AQUATEC INC

Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208880

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208880V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/22/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
591-78-6-----	2-Hexanone	5	U
124-48-1-----	Dibromochloromethane	0.5	U
106-93-4-----	1,2-Dibromoethane	0.5	U
108-90-7-----	Chlorobenzene	0.5	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4-----	Ethylbenzene	0.5	U
108-38-3-----	m- & p-Xylene	0.5	U
95-47-6-----	o-Xylene	0.5	U
100-42-5-----	Styrene	0.5	U
75-25-2-----	Bromoform	0.5	U
98-82-8-----	Isopropylbenzene	0.5	U
108-86-1-----	Bromobenzene	0.5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4-----	1,2,3-Trichloropropane	0.5	U
103-65-1-----	n-Propylbenzene	0.5	U
95-49-8-----	2-Chlorotoluene	0.5	U
106-43-4-----	4-Chlorotoluene	0.5	U
108-67-8-----	1,3,5-Trimethylbenzene	0.5	U
98-06-6-----	tert-Butylbenzene	0.5	U
95-63-6-----	1,2,4-Trimethylbenzene	0.5	U
135-98-8-----	sec-Butylbenzene	0.5	U
541-73-1-----	1,3-Dichlorobenzene	0.5	U
106-46-7-----	1,4-Dichlorobenzene	0.5	U
99-87-6-----	p-Isopropyltoluene	0.5	U
95-50-1-----	1,2-Dichlorobenzene	0.5	U
104-51-8-----	n-Butylbenzene	0.5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1-----	1,2,4-Trichlorobenzene	0.5	U
87-68-3-----	Hexachlorobutadiene	0.5	U
91-20-3-----	Naphthalene	0.5	U
87-61-6-----	1,2,3-Trichlorobenzene	0.5	U
1330-20-7-----	Xylene (total)	0.5	U

1E  
 VOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C31DA

Lab Name: AQUATEC INC

Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208880

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208880V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/22/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 115-07-1	1-PROPENE	2.08	3	JXN
2.	UNKNOWN	2.43	3	JX
3. 1191-96-4	CYCLOPROPANE, ETHYL-	3.32	0.8	JXN
4.	UNKNOWN SILICON COMPOUND	9.17	0.8	JXB <small>R</small>

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC INC

Contract: 92126

C31DB

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208881

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208881V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/22/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	UG/L Q
75-71-8-----	Dichlorodifluoromethane	0.5	U
74-87-3-----	Chloromethane	0.5	U
75-01-4-----	Vinyl Chloride	0.5	U
74-83-9-----	Bromomethane	0.5	U
75-00-3-----	Chloroethane	0.5	U
75-69-4-----	Trichlorofluoromethane	0.5	U
75-35-4-----	1,1-Dichloroethene	0.2	J
67-64-1-----	Acetone	5	U
75-15-0-----	Carbon Disulfide	0.9	
75-09-2-----	Methylene Chloride	0.2	J
156-60-5-----	trans-1,2-Dichloroethene	0.5	U
75-34-3-----	1,1-Dichloroethane	0.3	J
590-20-7-----	2,2-Dichloropropane	0.5	U
156-59-4-----	cis-1,2-Dichloroethene	0.4	J
78-93-3-----	2-Butanone	5	U
74-97-5-----	Bromochloromethane	0.5	U
67-66-3-----	Chloroform	0.5	U
71-55-6-----	1,1,1-Trichloroethane	0.5	U
56-23-5-----	Carbon Tetrachloride	0.5	U
563-58-6-----	1,1-Dichloropropene	0.5	U
71-43-2-----	Benzene	0.5	U
107-06-2-----	1,2-Dichloroethane	0.5	U
79-01-6-----	Trichloroethene	4	
78-87-5-----	1,2-Dichloropropane	0.5	U
74-95-3-----	Dibromomethane	0.5	U
75-27-4-----	Bromodichloromethane	0.5	U
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U
108-10-1-----	4-Methyl-2-Pentanone	5	U
108-88-3-----	Toluene	0.5	U
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U
79-00-5-----	1,1,2-Trichloroethane	0.5	U
127-18-4-----	Tetrachloroethene	240	E 150
142-28-9-----	1,3-Dichloropropene	0.5	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C31DB

Lab Name: AQUATEC INC

Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208881

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208881V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/22/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

591-78-6-----	2-Hexanone	5	U
124-48-1-----	Dibromochloromethane	0.5	U
106-93-4-----	1,2-Dibromoethane	0.5	U
108-90-7-----	Chlorobenzene	0.5	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4-----	Ethylbenzene	0.5	U
108-38-3-----	m- & p-Xylene	0.5	U
95-47-6-----	o-Xylene	0.5	U
100-42-5-----	Styrene	0.5	U
75-25-2-----	Bromoform	0.5	U
98-82-8-----	Isopropylbenzene	0.5	U
108-86-1-----	Bromobenzene	0.5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U
96-18-4-----	1,2,3-Trichloropropane	0.5	U
103-65-1-----	n-Propylbenzene	0.5	U
95-49-8-----	2-Chlorotoluene	0.5	U
106-43-4-----	4-Chlorotoluene	0.5	U
108-67-8-----	1,3,5-Trimethylbenzene	0.5	U
98-06-6-----	tert-Butylbenzene	0.5	U
95-63-6-----	1,2,4-Trimethylbenzene	0.5	U
135-98-8-----	sec-Butylbenzene	0.5	U
541-73-1-----	1,3-Dichlorobenzene	0.5	U
106-46-7-----	1,4-Dichlorobenzene	0.5	U
99-87-6-----	p-Isopropyltoluene	0.5	U
95-50-1-----	1,2-Dichlorobenzene	0.5	U
104-51-8-----	n-Butylbenzene	0.5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1-----	1,2,4-Trichlorobenzene	0.5	U
87-68-3-----	Hexachlorobutadiene	0.5	U
91-20-3-----	Naphthalene	0.5	U
87-61-6-----	1,2,3-Trichlorobenzene	0.5	U
1330-20-7-----	Xylene (total)	0.5	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C31DB

Lab Name: AQUATEC INC Contract: 92126

Lab Code: AQUAI Case No.: 92126 SAS No.: SDG No.: 41872

Matrix: (soil/water) WATER Lab Sample ID: 208881

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: I208881V

Level: (low/med) LOW Date Received: 01/21/94

% Moisture: not dec. Date Analyzed: 01/22/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

Number TICs found: 5 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 115-07-1	1-PROPENE	2.08	3	JXN
2.	UNKNOWN	2.43	3	JX
3. 1191-96-4	CYCLOPROPANE, ETHYL-	3.32	0.9	JXN
4. 109-66-0	PENTANE	3.40	0.8	JXN
5.	UNKNOWN SILICON COMPOUND	9.17	1	JXBK

**APPENDIX C-2      Chloride and Nitrate Analyses**



# Inchcape Testing Services

Aquatec Laboratories

Laboratory Locations  
55 South Park Drive  
Colchester, VT 05446

75 Green Mountain Drive  
South Burlington, VT 05403

150 Herman Melville Boulevard  
New Bedford, MA 02740

## Analytical Report

Goodwin, Procter & Hoar  
Exchange Place  
Boston, MA 02109

Date : 02/11/94  
ETR Number : 42232  
Project No.: 92126  
No. Samples: 14  
Arrived : 02/08/94

Attention : Laura Moore

Page 1

Case:92126 SDG:42232

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4-79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
210666 UC25A:02/07/94 @1300(Liquid)		
300.0 Chloride	8.1	
300.0 Nitrate as N	1.4	
210670 UC30A:02/07/94 @1215(Liquid)		
300.0 Chloride	91	
300.0 Nitrate as N	1.7	
210670MS UC30AMS:[MS]02/07/94 @1215(Liquid)		
300.0 Chloride	187	
300.0 Nitrate as N	2.9	
210670DP UC30AREP:[REP]02/07/94 @1215(Liquid)		
300.0 Chloride	88	
300.0 Nitrate as N	1.8	
210672 UC30B:02/07/94 @1215(Liquid)		
300.0 Chloride	90	
300.0 Nitrate as N	1.9	
210673 UC30C:02/07/94 @1400(Liquid)		
300.0 Chloride	<0.1	
300.0 Nitrate as N	<0.1	

124996 VAL

< Last Page >

Submitted By :

Aquatec Inc.



# Inchcape Testing Services

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South Burlington, VT 05403

150 Herman Melville Boulevard  
New Bedford, MA 02740

## Analytical Report

Goodwin, Procter & Hoar  
Exchange Place  
Boston, MA 02109

Date : 01/31/94  
ETR Number : 41872  
Project No.: 92126  
No. Samples: 14  
Arrived : 01/21/94

Attention : Laura Moore

Page 1

Case:92126 SDG:41872

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4-79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/	Parameter	Result
208876	C26DA:01/19/94 @1550(Liquid)		
	300.0	Chloride	250
	300.0	Nitrate as N	<0.10
208877	C26SA:01/19/94 @1550(Liquid)		
	300.0	Chloride	340
	300.0	Nitrate as N	1.1
208878	C29DA:01/19/94 @1650(Liquid)		
	300.0	Chloride	410
	300.0	Nitrate as N	2.4
208879	C29SA:01/19/94 @1650(Liquid)		
	300.0	Chloride	270
	300.0	Nitrate as N	14.4
208880	C31DA:01/19/94 @1350(Liquid)		
	300.0	Chloride	73
	300.0	Nitrate as N	<0.10
208881	C31DB:01/19/94 @1350(Liquid)		
	300.0	Chloride	75
	300.0	Nitrate as N	<0.10
208882	C31MA:01/19/94 @1340(Liquid)		
	300.0	Chloride	171
	300.0	Nitrate as N	<0.10

124319 VAL

< Cont. Next Page >





# Inchcape Testing Services

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Colchester, VT 05446

75 Green Mountain Drive  
South Burlington, VT 05403

150 Herman Melville Boulevard  
New Bedford, MA 02740

## Analytical Report

Goodwin, Procter & Hoar  
Exchange Place  
Boston, MA 02109

Date : 01/31/94  
ETR Number : 41872  
Project No.: 92126  
No. Samples: 14  
Arrived : 01/21/94

Attention : Laura Moore

Page 2

Case:92126 SDG:41872

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater.

All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
208882MS	C31MAMS:[MS]01/19/94 @1340(Liquid)	
	300.0 Chloride	400
	300.0 Nitrate as N	0.3
208882DP	C31MAREP:[REP]01/19/94 @1340(Liquid)	
	300.0 Chloride	180
	300.0 Nitrate as N	<0.10
208883	C31SA:01/19/94 @1330(Liquid)	
	300.0 Chloride	40
	300.0 Nitrate as N	0.2
208884	C31SC:01/19/94 @1330(Liquid)	
	300.0 Chloride	3.2
	300.0 Nitrate as N	<0.10
208886	C31SF:01/19/94 @1530(Liquid)	
	300.0 Chloride	<0.10
	300.0 Nitrate as N	<0.10

124320 VAL

< Last Page >

Submitted By :

Aquatec Inc.

